



# **SOCIAL MARKETING FOR RECYCLING IN OHIO**

A Guide to Understanding,  
Planning and Conducting  
Social Marketing Projects



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Planning and Conducting  
Social Marketing Projects

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## Preface

*Social Marketing for Recycling in Ohio* provides an introduction to social marketing for local community recycling programs. Social marketing is a systematic procedure that uses commercial marketing strategies to change behavior. Social marketing activities include setting measurable goals, conducting research about target audiences and developing unique promotional tools for different target audiences.

Social marketing techniques can be applied to a variety of community recycling opportunities, both small and large in scope. For example, social marketing projects may target a single drop-off, a school recycling program or many neighborhoods in a curbside program. The social marketing approach explained in *Social Marketing for Recycling in Ohio* is community and opportunity-based. It provides local programs with ways to increase recycling one opportunity at a time, which is especially appropriate in communities where resources are limited. For programs with funding available to hire a consultant, the guide provides enough information about social marketing to develop a request for proposal and evaluate submissions.

Social marketing is useful because traditional promotional efforts are often inadequate. Traditional recycling campaigns inform people about the benefits of recycling and how and where people can recycle. Researchers have discovered, however, that just knowing about an activity and its benefits is not often enough to change behavior. Even those who say they believe recycling is the right thing to do, often fail to make good with their behavior. Although changing attitudes is the first step toward acquiring support for recycling, more is often needed to change behavior. Social marketing provides a way to discover what motivates people to engage in an activity based on many factors other than attitude change alone. It provides a way to discover people's perceptions about potential barriers to recycling, some of which may be unique to each recycling opportunity. It provides ways to discover what behavior modification techniques may increase recycling and ways to design and evaluate promotional campaigns for different target audiences.

With these thoughts in mind, we hope that *Social Marketing for Recycling in Ohio* provides some helpful insights and opportunities to do some new things, to discover little or large ideas that will help promote recycling in the unique circumstances of each community.

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## **SECTION I**

# **SETTING THE STAGE FOR SOCIAL MARKETING & RECYCLING**

## **SECTION I**

### **Setting the Stage for Social Marketing and Recycling**

Recycling and the National Stage

Recycling and the Ohio Stage

Social Marketing and Recycling in Ohio

The Local Community Stage for Recycling



# SETTING THE STAGE FOR SOCIAL MARKETING & RECYCLING

Advocacy is necessary for public participation in recycling because Ohio's public recycling initiatives are voluntary. Social marketing is useful to recycling advocates because it provides a systematic approach to achieve the goals of advocacy. It does this by applying commercial marketing strategies to gain public support for recycling. Before examining social marketing for recycling, it is useful to understand why recycling advocacy exists. Recycling advocates are part of a tradition established by federal, state and local community governments, often in partnership with businesses and nonprofit organizations. National and state governments have set the stage for recycling advocacy.



Recycling is part of a national environmental agenda that began in the 1960's.

## Recycling and the National Stage

Recycling has been practiced for centuries: as part of the scrap trade and to reclaim materials during wartime. As we currently know it, recycling is part of a national environmental agenda that began in the 1960's. This agenda marked out a new role for recycling as both a conservation initiative (saving energy and resources) and a solid waste management practice (to reduce reliance on landfill space). The landmark National Environmental Policy Act, passed by Congress in 1969, set the stage for recycling as a conservation initiative by establishing, among other things, a goal to "enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources." Recycling became part of national waste management policy in 1970 when the Resource Recovery Act was adopted as an amendment to the Solid Waste Disposal Act (1965).

The Resource Recovery Act was prompted by the dramatic increase in the amount of municipal solid waste (MSW) generated by citizens, particularly those living in urban areas. By the late 1960's, MSW was quickly filling existing landfills. In the view of many public officials and the press, a solid waste crisis was looming in the near future. In this atmosphere, recycling arose as an important alternative for diverting MSW from traditional land disposal.

Changing the image of recycling from one of repugnance to one of respect was a major achievement of early recycling advocates.



At the time, solid waste management enterprises considered recycling a distraction that interfered with their primary mission to collect and dispose of waste in a sanitary fashion. Recycling was also neglected because it lacked economic incentives. Recycling brought in little or no revenue, and quantities recovered from MSW were small. The Resource Recovery Act attempted to build interest for recycling within the solid waste management industry by implicitly promising federal assistance to overcome technical and market problems associated with recycling MSW. Today, government programs address technical and market problems that continue to challenge recyclers.

In 1970, the federal government established the Environmental Protection Agency (EPA) to take a more assertive role toward addressing a host of environmental concerns. The EPA was mandated to improve water and air quality and to address concerns about solid and hazardous waste management. One of the early documents published by the EPA is a little known economic study of recycling called *Salvage Markets for Materials in Solid Waste*, printed in 1972. The study examined existing markets for recyclables to better understand how these markets might absorb more materials for recycling, especially waste materials from the growing residential sector. (In the 1960's, the vast majority of MSW that was recycled came from industrial or commercial operations.) The opening pages of the document questioned why recycling rates were so low. Among several factors listed are the following:

Virgin materials, even in unprocessed form, tend to be more homogeneous in composition than waste materials. Sorting of wastes is costly and, in an age of affluence and convenience, repugnant to those who would have to engage in it – the urban householders.

RCRA provides the framework for a comprehensive national program to encourage waste reduction and recycling.



Changing the image of recycling from one of repugnance to one of respect was a major achievement of early recycling advocates, but inconveniences associated with recycling continue to remain a barrier to public participation and are the primary focus of social marketing programs.

Recycling received a boost in 1976 when the Solid Waste Disposal Act of 1965 was reformed with a comprehensive overhaul referred to as the Resource Conservation and Recovery Act (RCRA). RCRA, administered by the EPA, defines requirements for the safe disposal of solid waste and the handling and disposal of hazardous waste. It also provides the framework for a comprehensive national program to encourage waste reduction and recycling.

Influenced by RCRA, the EPA published its *Agenda for Action* in 1989, which incorporated recycling as part of an integrated approach to solid waste management. As part of this agenda, a hierarchy of planning options was developed and recommended in the following order: reuse, waste reduction, recycling, resource recovery, incineration, and the final option – landfills. This hierarchy urged the federal government to take a leadership role in recycling by promoting waste reduction and recycling programs in federal bureaucracies and the armed forces, including procurement programs to purchase recycled-content products. RCRA continues to influence recycling programs today and involves numerous business-government partnerships.

## Recycling and the Ohio Stage

In 1972, the Ohio Environmental Protection Agency (Ohio EPA) was created and given authority to oversee the state's solid waste program in conjunction with local health departments. The Ohio EPA was also given the responsibility to meet RCRA goals established in 1976. Until the late 1980's, the Ohio EPA and county health departments concentrated most of their efforts on RCRA's requirements and recommendations for municipal solid waste and hazardous waste disposal. At this time, municipal solid waste recycling was generally conducted by local collection centers that arose in response to the national environmental movement.

While the Ohio EPA focused on waste disposal, recycling received a boost in 1980 with the passage of House Bill 361 directing the Ohio Department of Natural Resources (ODNR) to promote recycling and litter prevention. With funding from business groups, ODNR supported nonprofit community recycling centers and local government recycling education and awareness programs. ODNR's recycling program, operated by the Division of Recycling & Litter Prevention, continues today and is responsible for this publication.

The next big boost for recycling came from House Bill 592, which revised Ohio's 1967 solid waste law. Becoming law in 1988, H.B. 592 emphasized state and local solid waste management planning as established by RCRA. Under provisions in H.B. 592, the Ohio EPA developed a State Solid Waste Management Plan in 1989. Part of this plan directed counties to form solid waste management districts (SWMD), individually or in partnership, and to submit plans to the Ohio EPA in accordance with the state plan. This process of state and local planning continues today. SWMD plans must be updated every three or five years and include planning for a period of 10 years. Since 1989, the state's plan has been revised twice: the *1995 State Solid Waste Management Plan* and the *2001 State Solid Waste Management Plan*.

A continuing mandate in the State Plans – one based on a primary goal of House Bill 592 – is to reduce Ohio's reliance on the use of landfills for the management of solid wastes. This includes establishing objectives for solid waste reuse, reduction and recycling. The 1989 State Plan set a waste reduction and recycling rate (WRRR) of 25 percent of all solid waste generated in Ohio. At the time, the state recycling rate was 5 percent, and the national rate was 10 percent. According to the 1995 State Plan, a recycling rate of 29 percent (excluding waste reduction from incineration) was achieved in 1993. However, the majority of waste recycled came from the industrial sector, with lesser amounts contributed by the residential/commercial sector.

The lack of residential/commercial recycling prompted the Ohio EPA to change the 1995 State Plan to boost residential/commercial recycling by designating separate target rates for residential/commercial recycling and for industrial recycling. This separation of target rates was maintained in the 2001 State Plan and is more recently referenced in the 2004 State Plan Progress Report. According to the 2004 Progress Report, the state WRRR in 2002 stood at 45 percent, with a 21 percent residential/commercial WRRR and an industrial WRRR of 64 percent. These figures are slightly



A continuing mandate in the State Plans is to reduce Ohio's reliance on the use of landfills for the management of solid wastes.

Social marketing  
provides a   
strategic method to  
enhance residential/  
commercial recycling.

below the target rates set by the 2001 State Plan to achieve a residential/commercial WRRR of 25 percent, an industrial WRRR of 66 percent and an overall goal of at least 50 percent by 2005.

Current recycling rates in Ohio indicate that markets have been established for residential/commercial recycling above what existed in the late 1960s when the federal government began initiatives to spark the recovery of recyclables from MSW. A timeline of major events that have prompted recycling advocacy and led to increased recycling of MSW nationally and in Ohio is presented in Box #1, on page 55 in the Appendix.

## Social Marketing and Recycling in Ohio

The distinction between residential/commercial solid waste and industrial solid waste has important implications for the use of social marketing practices. First, social marketing provides a strategic method to enhance residential/commercial recycling as it continues to struggle behind industrial recycling. Second, social marketing research shows that setting recycling goals helps to increase recycling. Under the current, 2001 State Plan, the residential/commercial WRRR target rate is 25 percent. Therefore, social marketing projects designed to increase recycling participation in a specific residential or commercial recycling opportunity might appropriately designate a 25 percent recycling rate as a target goal. If a 25 percent WRRR has already been reached, it would be appropriate to set a higher achievable goal.

Social  
marketing   
programs  
are designed  
to achieve  
measurable  
results.

The distinction between residential/commercial and industrial recycling in the State Plan includes specific designations of potential target populations and materials from each sector. According to the State Plan, industrial solid waste is defined as non-hazardous waste material generated at manufacturing plants, and it may include items such as rubber, air pollution control dust, corrugated boxes, wood pallets and industrial sludge. Residential/commercial solid waste, the source of most MSW, includes waste materials from three main sources: residential waste from single and multifamily homes; commercial waste from office buildings and retail and wholesale establishments; and institutional waste from schools, libraries, hospitals and prisons. Social marketing projects can be designed for any of these residential/commercial sources and specific recycling opportunities that exist within them.

Social marketing programs are designed to achieve measurable results and therefore apply directly to the Ohio EPA's reduction/recycling goal: Goal #2 in the State Plan. This goal is based on the weight of materials recycled represented as a percentage of the total amount of solid waste generated. However, an alternative goal was introduced in the 1995 State Plan. It may be adopted by SWMDs that expect to have difficulty achieving targeted recycling rates. Identified as Goal #1 in the State Plan, the alternative goal is based on "access" to recycling opportunities as distinguished from achieving target percentage rates. The alternative standard has become known as the recycling access or recycling opportunity standard. It is explained in the 2001 State Plan.

According to the 2001 State Plan, SWMDs that anticipate difficulty in achieving the 25 percent residential/commercial WRRR may instead plan to “ensure that [within three years of plan acceptance] at least 90 percent of the residential sector in each county of the SWMD has access to recycling or other alternative management opportunities for the management of solid wastes.” SWMDs that choose the alternative access goal must also establish a target WRRR for the residential/commercial sector. This goal must be achieved by the third year after approval of the SWMD’s plan. The target rate must be higher than the WRRR achieved in the reference year – the reference year rate serving as base line data to measure achievement toward the three year WRRR goal. The three-year residential/commercial WRRR target that incorporates the access standard may serve as an appropriate target rate for specific social marketing projects.

The access standard also describes the types of materials to be targeted for recycling. According to the 2001 State Plan, all *residential* programs and activities that are planned in accordance with the access standard must collect a minimum of five of the materials listed below.

- |                        |                       |                             |
|------------------------|-----------------------|-----------------------------|
| • corrugated cardboard | • used motor oil      | • steel containers          |
| • mixed paper          | • textiles            | • aluminum containers       |
| • newspaper            | • lead-acid batteries | • plastic containers        |
| • glass containers     | • major appliances    | • household hazardous waste |
| • scrap tires          | • yard waste          |                             |

These materials are recognized as “highly amenable to recovery from the residential sector.”

Likewise, recyclable materials are identified for the *commercial* and *institutional* sectors. The SWMD must demonstrate that generators in the commercial and institutional sectors have access to recycling or other alternative management methods for at least five of the materials listed below.

- |                      |                              |                       |
|----------------------|------------------------------|-----------------------|
| corrugated cardboard | • aluminum containers        | • lead-acid batteries |
| • office paper       | • plastic containers         | • major appliances    |
| • newspaper          | • wood pallets and packaging | • yard waste          |
| • glass containers   | • food waste                 |                       |
| • steel containers   |                              |                       |

These materials are recognized as “highly amenable to recovery from the commercial/institutional sector.”

Social marketing practices are likely to be applied to recycling opportunities that accept the types of materials identified above, although specific recycling opportunities may not include five materials as specified. This is because many different recycling opportunities within a SWMD may be established to meet the five-material requirement.



The State  
Solid Waste  
Management Plan  
provides a point  
of reference when  
selecting target  
groups and target  
goals.



Social marketing projects are designed to address many elements of specific recycling opportunities (barriers, motivations, awareness tools, etc.). Therefore, it is likely that each social marketing project will be different for residential, commercial and institutional groups. Likewise, within these groups, social marketing projects will vary depending upon the target audience and waste materials collected. A summary of the State Plan recycling goals that provide opportunities for social marketing projects is provided in Box #2, on page 56 in the Appendix.

Social marketing projects are generally designed for ongoing recycling opportunities or opportunities that are intended to be ongoing. However, social marketing practices may also be applied to special collections that take place monthly or yearly for items such as electronics, major appliances and household hazardous waste.

Additionally, social marketing practices may be used to promote market development programs. Market development initiatives are not a requirement for SWMD plan approval; however, they have been addressed in the State Solid Waste Management Plan since the 1989 plan. Market development programs can take many forms, including government directives for public agencies to purchase a certain percentage of recycled-content products, programs that encourage private industry to use reusable resources as substitutes for raw materials and voluntary public initiatives called “buy-recycled” programs. Voluntary buy-recycled programs provide appropriate opportunities to apply social marketing practices to change the purchasing preferences of residents, commercial and institutional groups.

Whether social marketing is applied to buy-recycled programs or recycling collection opportunities, the State Solid Waste Management Plan provides a point of reference when selecting target groups and target goals in the design of social marketing projects. The Ohio Department of Natural Resources, Division of Recycling & Litter Prevention has adopted social marketing methods to assist SWMDs and local governments meet and exceed the State Plan recycling goals.

## The Local Community Stage for Recycling

Recycling has been a local community activity for generations. Before governments became involved in recycling programs, scavengers picked through garbage for reusable and recyclable materials, schools held newspaper recycling drives to raise money, and all the while, much more recycling was taking place among commercial and industrial businesses. During the 1970s, recycling collection centers sprang up in local communities throughout Ohio as citizens demanded that recoverable waste not be landfilled. This grass roots movement eventually acquired the notice of governments and waste haulers that have made recycling the private and public business it is today.

The Ohio EPA, through the State Solid Waste Management Plan, tracks recycling in counties and SWMDs throughout Ohio. The 2004 State Plan Progress Report paints a broad picture of recycling in local communities.



The following data reported in the 2004 Progress Report indicates the overall progress local communities have made toward meeting Goal #1 (access goal) of the State Plan:

From 2001 to 2003, non-subscription curbside recycling programs reported by SWMDs increased from 233 to 352.

From 2001 to 2003, subscription curbside recycling programs reported by SWMDs increased from 99 to 121.

From 2001 to 2003, drop-off recycling locations reported by the SWMDs increased from 639 to 1023.

The following data reported in the 2004 Progress Report indicates the overall progress local communities have made toward meeting Goal #2 (recycling rate goal) of the State Plan:

The statewide WRRR was 44.6 percent in 2002, up from 44.1 percent in 2001.

The statewide residential/commercial WRRR was 21.6 percent in 2002, slightly down from 21.9 percent in 2001, but up from 19.8 percent in 2000.

The statewide industrial WRRR was 63.7 percent in 2002, up from 61.7 percent in 2001.

According to the 2004 Progress Report, the following picture emerges of variations that exist among local government residential/commercial recycling programs in the state.


The WRRR for residential/commercial recycling achieved by the 52 SWMDs ranged from a low of 2.52 percent to a high of 35.6 percent with the following distribution:

Nineteen SWMDs achieved residential/commercial WRRRs of 2.5 percent to 14.9 percent.

Twenty-one SWMDs achieved residential/commercial WRRRs of 15 percent to 24.9 percent.

Twelve SWMDs achieved residential/commercial WRRRs of greater than 25 percent.

Behind these variations exist many different local community recycling opportunities and challenges. Social marketing practices are designed to address specific aspects of an individual recycling opportunity and the unique geographical and social context in which it exists. When a social marketing program is designed to meet local needs, it is referred to as “community-based social marketing.” Community-based social



Social marketing practices are designed to address specific aspects of an individual recycling opportunity.

Although the focus is local, the vision is often global.



marketing practices are designed to help SWMDs and the local communities within their domains improve public participation in recycling.

Although the focus is local in a community-based social marketing program, the vision is often global in nature. Recycling advocates adopt the values associated with sustainable development, which are often separate from solid waste management concerns. Values associated with sustainable development include resource conservation, environmental protection and equitable economic development. These values are at the heart of the National Environmental Policy Act explained at the beginning of this section. They are the heart of the Ohio Department of Natural Resources' mission to "ensure a balance between wise use and protection of our natural resources for the benefit of all." These values are also at the heart of local community development where recycling industries provide \$30 billion annually to statewide economic activity.

## **SECTION II**

# **INTRODUCTION TO SOCIAL MARKETING FOR RECYCLING**

## SECTION II

### Introduction to Social Marketing for Recycling

What is the purpose of social marketing, and how does it relate to recycling?

Why should recycling advocates use social marketing practices?

What type of recycling opportunities is social marketing appropriate for?

How is social marketing practiced?

Thinking Like a Marketer: Identifying and Describing Target Audiences

The Marketing Mix: The 4Ps

Product (the benefits of recycling)

Price (the barriers to recycling)

Place (recycling locations)

Promotion (recycling awareness and education)

Summary



# INTRODUCTION TO SOCIAL MARKETING FOR RECYCLING

Social marketing began in the early 1970s and has continued to grow through use in many different settings, including public health and national safety campaigns, voter registration drives, conservation programs and academic research at universities. Several questions are addressed below to explain the value of social marketing and how it can be applied to recycling initiatives.

## What is the purpose of social marketing, and how does it relate to recycling?

Social marketing has two functions: a social function and a marketing function. The word “social” in social marketing refers to quality of life concerns that affect us all such as clean air, good health, voting in elections and other civic concerns. Recycling is a quality of life concern, because it reduces pollution, saves energy, reduces the need for landfill space and generates jobs and wealth. The word “marketing” in social marketing refers to the use of commercial marketing strategies to increase public participation in activities that improve the quality of life. Commercial marketing strategies are useful for promoting recycling because, just like consumer purchasing behavior, recycling is a voluntary action requiring public persuasion. Where commercial marketers focus on selling products, social marketers focus on selling behaviors.

## Why should recycling advocates use social marketing practices?

Social marketing is becoming increasingly popular with nonprofit organizations, public agencies and grant programs, because it relies on research-based planning to achieve measurable results. Incorporating measurable results into program planning provides a way to justify funding and program development. Local recycling programs can use social marketing plans to apply for grants, acquire corporate donations and help solid waste districts meet recycling goals.



Social marketing is becoming increasingly popular with nonprofit organizations, public agencies and grant programs.

Any local community recycling program can use some social marketing practices to help achieve measurable results.



## What type of recycling opportunities is social marketing appropriate for?

Social marketing strategies can be applied on a large scale or a small scale to a variety of recycling opportunities. A social marketing project may be applied to one or many neighborhoods in a curbside recycling program, a single apartment complex or multiple apartment buildings, a single school or many schools within a school district, one or more drop-off sites, a special collection activity for household hazardous waste or electronics, a single retail outlet or an entire chain of stores that sell recycled-content products. The type of recycling opportunity and scope of a social marketing project is dependent upon the time, money and resources that can be dedicated to it. However, any local community recycling program, no matter how small or how limited its budget, can use at least some social marketing practices to help achieve measurable results.

## How is social marketing practiced?

Social marketing is fundamentally a way of thinking about recycling that requires thinking like a marketer. This way of thinking begins with the process of identifying target audiences and assessing their views about recycling according to the “marketing mix.” These two social marketing strategies are explained below.

### Thinking Like a Marketer: Identifying and Describing Target Audiences

Target audiences are segmented because marketers have discovered that you cannot appeal to all people in a population in the same way.



Social marketing, just like commercial marketing, is customer driven. It requires getting to know a target audience, also called a target population, before developing education and awareness programs and other strategies to promote recycling. A target audience consists of all of the people served by a recycling opportunity. However, a target population for a recycling opportunity is likely to be made up of diverse groups of people that may be “segmented” into smaller groups. These smaller groups are called target audience segments or segmented target audiences. Target audiences are segmented because marketers have discovered that you cannot appeal to all people in a population in the same way. Target audiences can be segmented in many different ways depending upon various characteristics, including demographic data, geographic information, attitudes and beliefs, values and lifestyles. Box #3, on page 57 in the Appendix, provides a list of these characteristics and examples of how they are revealed in recycling research.

Research enables marketers to segment a target audience and provides guidance in selecting which segments to target in a social marketing project. For example, research can indicate the number of miles people drive to use a drop-off such as those who drive two miles or less, those who drive between two and five miles and those who drive over five miles. With this information, a target population can be segmented into three groups based on how far people drive to use the drop-off. Furthermore, research can identify the most frequent users of the drop-off based on the three categories. This

information can then help recycling advocates decide whom to target in promotional campaigns. For example, if the majority of users are those that drive two to five miles to use the drop-off, a recycling program may choose this segmented group for a social marketing project because people in this group are most likely to use the drop-off. By appealing to “nonusers” in the group “most likely to use” the drop-off, the program is selecting the target group segment that is most likely to adopt the recycling behavior. This increases the chance the program will achieve its social marketing goal of increasing participation in the recycling opportunity.

This is not the end of the segmenting process however, because other target group characteristics can also come into play. Research may indicate that within the group of those who travel two to five miles (the most frequent user group based on distance traveled), the majority of people are age 40 to 50 years old. In addition, within this group, research may indicate that men are more likely to use the drop-off than women. Now, the target audience segment may be defined by several characteristics: distance traveled to the drop-off, age and gender. An example of a research survey used to identify these types of characteristics related to a drop-off opportunity is found in Box # 11, on page 65 in the Appendix.


Before leaving the example above, further thinking is in order related to the drop-off scenario. First of all, research may indicate that it is not the distance traveled to the drop-off that is the most salient characteristic of the target population, but that age or gender differences are. For example, it may be found that the majority of users are of a certain age and gender (men age 40-50 years old) regardless of distance traveled. In this case, the target audience segment would not be described based on distance traveled to the drop-off site, but rather on the basis of gender and age. Additionally, a recycling program may decide not to target the “most likely users” of a drop-off if it is discovered that there are not many nonusers of the opportunity within the group described as “most likely users.” This would mean that even if the nonusers in this group change their behavior, there would not be enough of them to increase usage of the drop-off site significantly.

Ultimately, once various segments of a target population have been identified, programs must decide which segment or segments to target based on reasoning about the potential to increase participation, resources available and relative ease of reaching the segment or segments with promotional materials and tools.

This is thinking like a marketer, and it does not end here. Although the first step in marketing is often to segment target audiences according to demographic, geographic and user/nonuser characteristics, the next step is equally important. It requires uncovering the barriers and motivations of target audiences relative to use of the recycling opportunity. This information is equally important when developing a promotional program.

## The Marketing Mix: The 4Ps

Once a target audience segment or segments have been identified based on demographic, geographic and user/nonuser characteristics, the practical question



Programs must decide which segment to target based on the potential to increase participation, resources available and relative ease of reaching the segment or segments.

Selling recycling behavior requires “positioning the product” so that it sells.



becomes this: “What more can be learned about segmented target audiences that will help develop tools to increase recycling behavior?” According to commercial marketers, this requires knowing target audience views about the four “Ps,” also called the “marketing mix.” The 4Ps are product, price, place and promotion.

## PRODUCT

### the benefits of recycling

Recycling programs have two basic “products” to sell: one is “selling” participation in recycling collection programs (a behavior), and the other is “selling” participation in buy-recycled programs (a behavior and a product). Selling recycling behavior requires “positioning the product” so that it sells. In order to sell recycling, it must appeal to the target audience by answering the following questions:

- What’s in it for me?
- What are the benefits of recycling?
- What are the consequences of not recycling, or of throwing things away.

Traditionally, recycling programs have concentrated on making people aware of the benefits of recycling. These include saving energy and resources, reducing landfill space and generating jobs. In some cases, direct monetary incentives (cash for recyclables, pay-as-you-throw cost avoidance) may exist as benefits. Social marketing research can uncover the degree to which people in a local community are aware of these benefits and the extent to which these benefits affect recycling behavior. Most importantly, research can uncover which benefits are the most important for different target audiences.

In addition, research may uncover benefits that are not directly related to the actual recycling activity. These may include “What’s in it for me?” benefits such as getting to know one’s neighbors as part of a recycling promotional effort, receiving a newsletter about recycling that also provides local community information and coupons for zoo admission or for recycled-content products that are part of a promotional campaign. These “augmented products” of recycling programs may take many forms but are generally associated with tools used to promote or facilitate recycling.

## PRICE

### the barriers to recycling

Price refers to the “cost” incurred by those who engage in recycling. Costs may be monetary (fees for participation in recycling collection programs) and/or non-monetary such as time and effort involved in sorting and storing collected items for curbside pick up or for delivery to a drop-off. These costs make up “inconvenience factors” associated with recycling. Inconvenience factors are often described as barriers to recycling. In the case of buy-recycled programs, recycled-content products compete with virgin products for consumer attention – attention that is generally focused on cost comparisons and product quality. Since many recycled-content products cost more than virgin counterparts, higher prices may be barriers to recycled-content purchasing.



The first step in researching costs is to identify all the potential costs associated with a recycling opportunity by identifying all the steps a target audience must go through to complete the activity. This may include an investigation of how and where household recyclables are separated and stored, including weight of containers and physical effort needed to lift and take containers to the curb. A variety of barriers may be uncovered based on direct observation or interviewing participants that engage in the activity. Barriers can be very specific depending upon target audience perceptions related to the unique nature of a recycling opportunity.

It is also important to understand the costs people associate with competing behaviors, i.e., throwing things away and buying virgin products. Programs can take advantage of the costs of competing behavior by using tools such as pay-as-you-throw or increased tipping fees to increase the costs of throwaway behavior.

## **PLACE**

### **recycling locations**

The issue of “place” in the marketing mix requires attention to two concerns: the collection location and the messages related to use of the location. Location is the place where the recycling opportunity exists. This could be the curb for curb-side collection opportunities, a drop-off site location, a special collection point, or a specific retail store that sells recycled-content products. Place includes consideration of convenience and accessibility of the recycling opportunity location. Accessibility and convenience factors include location proximity, times of use, aesthetic and psychological appeal, number and variety of opportunities.

Messages about use of the location include considerations of where to locate instructions, the form in which instructions are presented and other information supplied with the instructions. Research about the location can uncover target audience perceptions about the convenience of the site and the type of instructions and messages that are most useful and appealing, including target audience understanding of instructions for use of the site.

## **PROMOTION**

### **recycling awareness and education**

Promotion is the element of recycling programs that includes media advertising, media advocacy, awareness and education programs, in-store advertising and other “getting-the-message-out” efforts to generate and sustain demand for recycling. Once segmented target audiences are identified for a promotional campaign, various elements of the campaign (print materials, educational strategies, media campaign) can be developed based on what appeals to the target audiences. Marketing research can uncover promotional strategies and tools that will be the most effective with different segments of a target audience.



The first step is to identify all the steps a target audience must go through.



Research can uncover target audience perceptions about the convenience of the site and the messages that are most useful and appealing.

## Summary

The more recycling programs know about the marketing mix in relation to specific target audiences, the more likely they are to achieve the desired results of sustaining and increasing recycling participation. There are many ways to discover how target audiences perceive specific recycling opportunities. Acquiring this information is the purpose of marketing research. Box #4, on page 58 in the Appendix, identifies important target audience considerations related to the marketing mix and recycling. These considerations often find their way into recycling research surveys and results.

It should be clear by now that research is essential to program development. Research may consume as much as 50 percent of the time it takes to execute a social marketing project. It can uncover some very simple things, such as what colors to use in a brochure targeted to a specific audience, where to place instructions for use of office recycling containers or where to place recycled-content products in a retail outlet. Research can also provide more complex insights. It can discern if lack of knowledge about recycling is a barrier to use of a recycling opportunity and if this factor is a greater barrier than the inconvenience associated with using the opportunity. It can discover if knowing what happens to recycled material would motivate people to recycle. It can evaluate recycling benefits to determine if claims about resource conservation are perceived by a target audience to be more important than saving landfill space or being a good citizen. Research can uncover many things that recycling programs want to know. Then, once research is obtained, strategies developed in response to research can be developed and initiated to influence recycling behavior. These responses to research can, in turn, be evaluated to indicate if desired results have been achieved.

Results-based planning, marketing research and development of appropriate responses to research form the essential components of a social marketing project. The marketing mix is an integral part of this three-part scheme that we call the 3Rs of social marketing.

## **SECTION III**

# **THE 3RS OF SOCIAL MARKETING**

## SECTION III

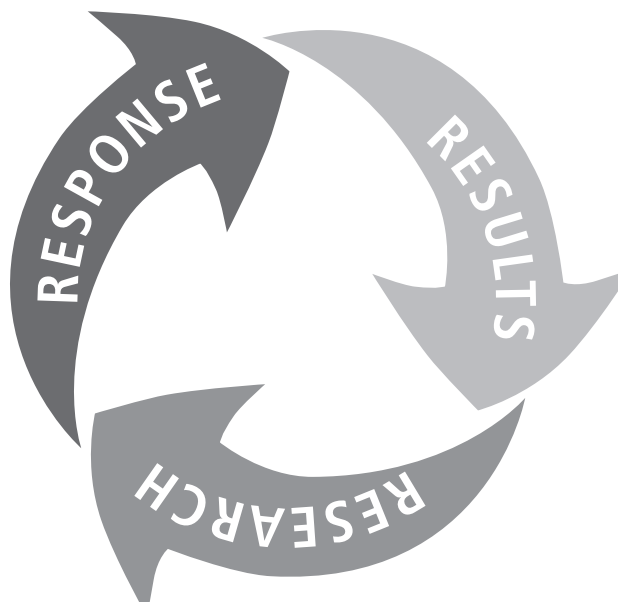
### The 3Rs of Social Marketing

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# THE 3RS OF SOCIAL MARKETING

RESULTS, RESEARCH and RESPONSE are the 3Rs of social marketing. Results-based goals linked to recycling rates, materials collection or public participation are established at the beginning of a social marketing project. Research is then applied to many steps of a social marketing project, but most importantly to learn about target audiences. Responses to research involve developing and implementing tools for different target audiences based on research findings. Tools may include media campaigns, promotional materials, educational programs and behavior change strategies. After tools have been used, they are evaluated according to the results-based goals established at the beginning of the project. In this manner, the 3Rs form a loop, like the recycling loop. Social marketing starts with establishing results-based goals to guide research. Research is used to develop response activities designed to achieve measurable results.





# RESULTS

Social marketing projects are designed to achieve two types of results: primary and secondary. Primary results are directly related to recycling behavior. They include recycling rates, amount of recyclables collected, number of people participating in a recycling opportunity and increased purchases of recycled-content products. Secondary results, on the other hand, are indirectly related to recycling. They include the development and implementation of activities designed to achieve primary results. These activities include research gathering and the development and implementation of research-based tools. Box #5, on page 59 in the Appendix, provides examples of primary and secondary results-based goals. Primary results provide indicators of success; secondary results provide indicators of activity accomplishment. Both the primary and secondary results of recycling behavior and activity accomplishment can be numerically quantified.




The results of recycling behavior and activity accomplishment can be numerically quantified.

## Primary Results

Results-based goals for recycling collection programs take three different forms: recycling rates, collection quantities and public participation. Buy-recycled programs have different goals. These are explained following a discussion of recycling collection goals.

### Recycling Rates

The most important recycling goal, according to the State's Solid Waste Plan (see page 6 in Section I), is to increase Ohio's recycling rate. The recycling rate is the amount of recyclables collected as a percentage of all waste generated. Percentages are calculated by dividing the amount of materials recycled by the amount of waste generated. A goal to increase a recycling rate is appropriate for a social marketing project as long as data can be obtained about total waste generated and the amount of recyclables collected in the recycling opportunity.



Increasing collection quantities is a worthwhile goal to establish when data cannot be obtained to calculate a recycling rate.

### Collection Quantities

In cases where data cannot be acquired to establish recycling rates, results-based goals may be based on the weight of recyclable material collected, generally recorded in pounds or tonnages, depending on the size of the recycling opportunity. Often an increase in recyclables collected indicates a corresponding increase in the recycling rate for a recycling opportunity. In some cases, however, an increase in recycling collection may not indicate an increase in the recycling rate over time, particularly in communities where development and population growth have led to greater amounts of waste material generated. (Likewise, a decrease in recycling collection may not indicate a decline in the recycling rate, if a community experiences a decline in waste generation arising from developmental and population decline.) Therefore, achieving an increase in the amount of material recycled may have less impact than achieving an increase in the recycling rate. But increasing collection quantities is a worthwhile goal to establish when data cannot be obtained to calculate a recycling rate.

Social marketing is a valuable tool for increasing public participation in buy-recycled programs.



## Public Participation

The third results-based goal that may be considered for a social marketing project is to increase the number of people who recycle in a recycling opportunity. The increase in participation may be expressed as either a percent increase in the number of people participating or as a participation rate. A participation rate is the number of people who recycle as a percent of all those potential participants (users and nonusers) in a recycling activity.

In neighborhoods and communities experiencing significant population growth, an increase in the number of people who recycle may not indicate an increase in the participation rate. (Likewise, in communities experiencing significant population decline, a decrease in public participation may not indicate a decline in the participation rate.) For this reason, it is better to establish a participation rate goal than a goal to increase the number of people recycling. In spite of the potential shortcomings, setting goals to increase the number of people who recycle remains worthwhile in cases where data about all potential participants in a recycling activity cannot be acquired.

## Buy-Recycled

In addition to helping programs achieve recycling collection goals, social marketing is also a valuable tool for increasing public participation in buy-recycled programs. These programs may include consumer purchases of recycled-content products through mail-order or retail outlets or purchases of recycled-content products by institutions (schools, businesses, public agencies). Results-based goals for buy-recycled programs are based on increases in the number of recycled-content products sold or purchased. This data can be captured in retail store inventories, records of institutional purchases, or through surveys of consumers. Retail store optical-scanning technology has the potential to make data collection of recycled-content product inventories easy to obtain, while institutional purchases are easily acquired from accounting records. Surveys of consumer purchasing habits can be conducted on-site at retail outlets; however, this is an unreliable way to measure consumer purchases unless actual purchases can be verified.

Buy-recycled programs are particularly appropriate for social marketing projects because they focus on the sale of consumer products and the application of commercial marketing strategies. Be aware, however, that definitions of what may constitute a recycled-content product vary according to the percentage of secondary material in the product and whether it is pre- or post-consumer. Before setting goals, make sure to carefully define the exact type of products that will be included in the project.

## Additional Opportunities

Social marketing projects can be designed for situations other than those discussed above. These include special collections for old computers or household hazardous waste, reuse programs or even issues of material contamination at recycling collection points. However, just as in the case of recycling collection and buy-recycled programs,



consideration must be given to the type of data that can be collected for these projects before establishing results-based goals.

## **A Final Word About Data Considerations**

By now it should be clear that establishing result-based goals for social marketing projects is dependent upon the type of data that can be acquired for a specific recycling opportunity. For example, it is impossible to document an increase in the recycling rate for a recycling opportunity if data about the total amount of waste generated cannot be obtained. This is frequently the situation with drop-off recycling opportunities where it can be very difficult to obtain waste generation data for all the potential users of a given drop-off. In this case, goals may be based on the amount of recyclables collected or the number of people using the opportunity. On the other hand, it can be relatively easy to obtain waste generation data for an office building or school by conducting a waste audit or obtaining figures from a waste hauler. Therefore, when selecting a results-based goal for a social marketing project, consider carefully the type of data that can be acquired.

Data used to set goals for a social marketing project can also serve as base line data. After tools have been implemented to increase recycling, data will be collected again and compared to the base line data to ascertain if initial goals have been met, exceeded or underachieved.

## **Secondary Results**

Although primary, results-based goals are the most important goals to consider when planning a social marketing project, secondary results also provide important measures of social marketing project outcomes. Secondary results are related to research and response activities. These activities will vary depending upon the research conducted and the response tools designed to promote recycling. For example, a secondary result might be the development of a survey for potential participants in a curbside recycling program; the design of a media message for a segmented target audience; or the development of classroom materials for elementary students with messages designed to reach their parents or guardians all designed for the purpose of achieving the primary, results-based goals of the social marketing project. At the conclusion of a social marketing activity, secondary results can be expressed in numerical measures of the number of people reached or participating in an activity, or the amount of materials distributed.

## **The Worry About Results-Based Goals**

The primary purpose of establishing results-based goals is to provide guidance and a clear vision for planning a social marketing project. Results are also useful for evaluation purposes and so can generate anxiety about achieving desired results. In fact, the main reason given by people for not engaging in social marketing projects is the fear of failure to achieve results-based goals. It must be remembered, however, that not achieving desired results does not mean that a social marketing project has failed.

Not achieving  
desired results  
does not mean that  
a social marketing  
project has failed.



Rather non-attainment of goals, as in most endeavors, is a learning experience to be built upon in the planning of future action. It is important also to consider that failure to achieve results-based goals can be the result of unforeseen circumstances such as political or economic events beyond a program's control.

In cases where primary results are not achieved, especially in first attempts to attain project goals, many of the secondary results of a social marketing project may prove beneficial. For example, surveys that were developed may be useful in future projects or might be shared with other programs considering similar projects. Tools developed in response to social marketing research may contain several useful elements that can be applied in other contexts. Local community partnerships that were organized to plan and implement the social marketing project may prove useful for many program purposes. Overall, it is highly unlikely that a social marketing project will not provide any benefits to a local program, even when primary, results-based goals are not achieved the first time around.

The best way to ensure that a social marketing project achieves desired results is to conduct research prior to developing promotional material and activities. For this reason research is the foundation of a social marketing program.

# RESEARCH

Research plays an important role throughout a social marketing project. It provides information to establish base line data and to measure results; it provides information to segment target audiences; it provides guidance for the development of promotional material and other tools that encourage recycling behavior; and perhaps most important, research can tell us why some people recycle and others do not. All together, research may consume half the time required to conduct a social marketing project.

There are two basic types of research: secondary and primary. Secondary research explores existing information about recycling. It consists of information in books, articles, census data, marketing databases, and reports and studies. It may also include personal interviews with peers, colleagues and recycling experts. Unlike secondary research, primary research is planned and conducted by the program. Primary research techniques include observational studies, focus group interviews and many types of surveys.

## The Purpose of Research

Without research, you work from hunches alone. (A hunch is a feeling about something not based on known facts.) For example, you may have a hunch that the best way to increase buy-recycled behavior is to print and distribute a directory of recycled-content products, including locations where the items can be purchased. But research may show this strategy is more effective if a recycling message is placed on the store shelf at the recycled-content product's point of sale. Research may further indicate the type of prompt that will work best at the point of sale.

Let's consider two more examples. You may have a hunch that a billboard message about recycling will be seen by many people in your community, but you may discover through research that signage on recycling collection trucks will reach more people. You may think that presentations to children in classrooms will motivate students to recycle when they get older, but research may indicate that engaging students in recycling service learning projects is more effective in the long term.

In other words, research can help you design social marketing projects that have a greater chance of succeeding than projects built on hunches alone. Doug McKenzie-Mohr, a leader in the field of social marketing for sustainability, addresses this issue in the following manner:

Social psychological research suggests that we readily form personal theories regarding the behavior of others and then search selectively for information that confirms our beliefs. This suggests that program planners are apt to believe that they already fully understand the barriers to an activity, independent of whether they actually do.


[*Journal of Social Issues*, September, 2000, 56 (3), p. 551.]



Research may consume half the time required to conduct a social marketing project.



Research can help you design social marketing projects that have a greater chance of succeeding than projects built on hunches alone.

Avoid  reinventing the wheel.

Both secondary and primary research can provide information to verify or reject our initial hunches.

## Secondary Research

Secondary research should precede primary research to avoid reinventing the wheel. Much information already exists in reports, trade publications and academic journals about strategies that have been used in specific recycling situations, including curb-side collection, drop-off programs, mall and retail initiatives, multi-family housing programs and buy-recycled campaigns.

Information about recycling research is available on the Internet. The National Recycling Coalition has compiled a “Recycling Library” consisting of numerous reports, fact sheets and studies from organizations around the country. The Massachusetts Department of Environmental Protection has a collection of recycling research articles on its Web site. Another source of recycling research is the Fostering Sustainable Behavior Web site run by the Canadian environmental group, McKenzie-Mohr & Associates. (These sites are listed in the Resources section.) Once information has been acquired about a specific recycling opportunity, it can be applied to design education and awareness tools, to generate questions for peers and recycling experts and to develop unique primary research activities.

## Primary Research

Each recycling opportunity possesses a unique set of circumstances, presenting a good reason to conduct primary research. For example, it is unlikely that any single drop-off collection site would occupy the same type of land space, possess the same patterns of use and include the same socio-economic and age group participants as other drop-off sites in the community. Primary research facilitates the design of promotional strategies that are compatible with the unique circumstances of a specific recycling opportunity. Primary research can also evaluate how one recycling opportunity compares to others in a community.

There are many types of primary research techniques, including observations of recycling behaviors, asking people questions about recycling and setting up experimental projects. Although research can be used for a number of purposes in a social marketing project, the most important is to discover the barriers and benefits people associate with recycling. Doug McKenzie-Mohr and William Smith in their book, *Fostering Sustainable Behavior* (see Resources section), suggest the following questions help identify the barriers and benefits people associate with recycling.

- What makes recycling difficult to do?
- What makes recycling easy to do?
- What positives are associated with recycling?
- What negatives are associated with recycling?
- Who wants people to recycle, and how much do people care about their opinion?
- Who doesn't want, or care if people recycle, and how much do people care about their opinion?

Social  marketing experts advocate securing partnerships especially on those projects where data analysis is challenging.

There are many ways to address these questions using different research designs and techniques, some of which are more complex than others. For example, a survey designed to distinguish between the responses of recyclers and non-recyclers to the types of questions listed above requires multivariate statistical analysis (multiple regression, discriminant analysis, logistic regression). This calls for expertise. Social marketing experts advocate securing partnerships with universities and businesses to help design, conduct and evaluate local research projects, especially those where data analysis is challenging. On the other hand, local programs can acquire enough understanding about simple research activities to initiate and complete a research project with in-house staff.

Programs that have research funding available can learn enough about research activities to generate a request for proposal and judge the ability of service providers to meet program needs. To help local programs assess what types of primary research are best suited for their circumstances, different examples of primary research are explained below. Some are quantitative in nature, some qualitative, and some can incorporate both quantitative or qualitative designs.

## Quantitative and Qualitative Research

Primary research includes two basic methods: qualitative research and quantitative research. Qualitative research helps understand recycling from the target audience's point of view, including why people think or do something the way they do and how they speak about recycling. Questions are generally open-ended, and sample sizes are usually small, which means findings cannot be projected to larger populations. Qualitative research methods include focus groups and in-depth interviews with small numbers of people.

Quantitative research gathers information from larger numbers of people. This information may identify how many people recycle, who these people are and the value they place on recycling in their community. Quantitative research can also predict the effect of recycling promotional activities and indicate if behavior change is related to recycling program activities. Sample sizes are usually large, and questions are specific and to the point. Findings can be projected to a larger population when the quantitative method is based on a sizable random sample. Quantitative research methods include standardized surveys (telephone, mail), face-to-face interviews, controlled observational studies and control group experiments.

The use of both qualitative and quantitative research can lead to deeper understanding of target audience members, including reasons for their behavior. Often, quantitative research can be used to verify the findings of qualitative research by incorporating the findings of qualitative research into questionnaires administered to a large number of people.

Conducting primary research can be as simple as making observations from a parked car, or as complex as conducting a survey with multiple regression factors. If you can read, talk to people and observe their actions, you can conduct simple, primary research activities without hiring an expert. Various types of primary research are



### Qualitative research

helps understand recycling from the target audience's point of view.



### Quantitative research

identifies how many people recycle, who these people are and the value they place on recycling.



### The use of both

qualitative and quantitative research can lead to deeper understanding of target audience members.

explained below. They are ordered from relatively easy to relatively complex to conduct. Box # 6, on page 60 in the Appendix, summarizes both secondary research and primary research activities.

## **Observational Studies**

Observational research can be conducted easily and quickly at low cost, depending upon the scale of the study and how systematic it is structured. Observational studies monitor people's behavior in real settings without their knowledge. Observational studies should be carried out as unobtrusively as possible because people behave differently when they know they are being observed. The information gathered from observational studies is generally very reliable. Observational studies are particularly useful to verify self-reporting in surveys where people may say they recycle more frequently than they actually do. Caution is warranted, however, relative to ethical and privacy issues. Observations are appropriate as long as they are made from public areas and do not violate people's privacy.

Observational studies can be qualitative or quantitative and are able to provide different types of information. By focusing on a few people and taking notes, observers can document how people actually engage in recycling activities, the skills needed and the common errors people make when recycling. Observers can detect what triggers or cues people to use recycling containers and what reinforces use. Box #7, on page 61 in the Appendix, provides an example of an observation and experimental study that led a recycling program to modify its strategy.

Quantitative data acquired in an observational study can indicate the type of people who recycle, when they recycle, amount and types of recyclables collected, and the amount and types of contamination. Quantitative observation studies may include the use of protocols that tell observers where and when to conduct research, what behaviors to look for and how to code their observations to capture a variety of information. Check lists or tally sheets may be used to facilitate the recording of data. It must be remembered, however, that observation cannot replace focus groups and surveys as methods of determining why people recycle or do not recycle.

## **Group Meetings**

Group meetings are discussions in a forum-type atmosphere. They often include recycling program stakeholders and gatekeepers (waste haulers, commercial business owners and managers, apartment building owners and managers, recycling coordinators, community officials) and people representative of the target audience (multi- and single family households, residents or employees). Group discussions may be held to plan social marketing projects or to identify common perceptions about the barriers and benefits of recycling. Individuals attending the group meetings may also be included in advisory committees to provide oversight and build support for social marketing projects. Box #8, on page 62 in the Appendix, provides an example of a group meeting that addressed barriers associated with multi-family recycling.



## Focus Groups

Focus group research is a qualitative research method most associated with social marketing. Focus groups can provide insight into how people think about recycling, what words they associate with recycling and how their lifestyles make recycling easy or difficult for them. This is information that is difficult to obtain in surveys. Ultimately, focus groups can provide the basis for constructing surveys to verify important responses arising from focus group discussions. The most important use of focus groups is to identify recycling barriers and motivations and to pretest and evaluate tools designed to increase recycling. Box # 9, on page 63 in the Appendix, contains a list of questions used by focus group researchers to uncover recycling barriers and motivations. Box # 10, on page 64 in the Appendix, provides examples of focus group questions used to evaluate promotional tools.

Focus groups consist of five to ten people (preferably randomly selected) who represent a target audience. They are paid to discuss, for up to two hours, clearly defined questions informed by secondary research. If there is time and money to conduct several focus group sessions, it is best to hold separate sessions for men and women and for recyclers and non-recyclers. Separate focus groups for men and women help reduce the tendency for men to dominate discussions and to discern the different ways each gender may think about recycling. Separate focus groups for recyclers and non-recyclers helps acquire non-recycler viewpoints that might otherwise be held back in a mixed group where social pressure exists to voice recycling's importance. Separate focus groups might also be conducted for people from different geographical locations, neighborhoods and household types encompassed by a recycling opportunity.

On the other hand, if there is only time and money to conduct one or two focus groups to address a particular issue, it may be of benefit to include a wide range of age, income, education levels, ethnic backgrounds and household types among participants, and to include people who recycle and some who do not. The selection of focus group participants depends on the objectives of the research project and the number of focus groups that can be held. Generally, it is expensive to conduct more than two to four focus groups in a limited time period.

There are well developed procedures to arrange and facilitate focus groups, including how to prepare questions to be covered in a limited amount of time (generally one-and-a-half to two hours), how to identify an appropriate setting for the meeting, strategies to moderate group discussion successfully and techniques to analyze responses. Therefore, preparation and training is required when planning and conducting focus groups with in-house staff. Some excellent practical guides exist to help plan and conduct focus groups (see the Resources section).


It is risky to generalize the results of focus group research to an entire target audience because information is derived from only a few people. In a situation where the target audience is large, focus group results should be verified with questionnaire or telephone surveys that reach more people. On the other hand, focus group research may be useful without the use of surveys in cases where social marketing projects are small, such as school recycling projects, one or two drop-off opportunities, or a single



Focus groups can provide insight into how people think about recycling, what words they associate with recycling and how their lifestyles make recycling easy or difficult.



It is risky to generalize the results of focus group research to an entire target audience.

Surveys  
incorporate   
quick answer  
questions that  
can be designed  
to validate  
information.

neighborhood curbside program. Focus group research is also sufficient when used to pretest promotional material or other tools.

## Surveys

Surveys include several types of quantitative research options described below. Surveys take the form of “instruments” or questionnaires that contain lists of questions. They incorporate relatively quick answer questions that can be designed to validate information from secondary sources, observational studies, group meetings and focus groups. Surveys can provide data about the demographic characteristics of recyclers and non-recyclers. They can indicate how many people believe or behave a certain way and if there are differences in responses based on gender, age and other characteristics. Surveys can also be developed to predict the effect of a particular marketing strategy or promotional tool and to indicate the degree that any behavior change was related to exposure to a promotional program. Although some surveys require relatively complex analysis, small, uncomplicated surveys can be constructed to produce simple tallies and percentage calculations.

### Intercept Interviews (Face-to-Face Interviews)

Intercept interviews interrupt people in locations such as businesses (supermarkets, fast food outlets, chain stores, malls, gas stations), county fairs, street corners and recycling sites to ask them questions. At the beginning of the survey, potential respondents can be asked a few questions to determine if they meet target audience qualifications. Questionnaires are generally multiple-choice in nature with limited short-answer questions recorded by the interviewer. Standard interviews may take 15-20 minutes, and the entire project may require numerous volunteers. Still, a large number of people (50-100) can be approached relatively quickly and inexpensively. However, results cannot be projected to the entire target audience confidently because those interviewed have not been randomly selected.

Intercept interviews are appropriate to validate information obtained from secondary sources of information and from focus groups. They can also be used to develop user profiles for recycling opportunities. Box 11, on page 65 in the Appendix, provides examples of questions used in a solid waste district drop-off survey to gather participation data.

### In-Depth Interviews

These surveys are conducted person-to-person with a random sample of residents or business people, generally in their homes or offices. The questions may be like those used in intercept interviews or designed like focus group questions to elicit more detailed responses. In-home interviews also allow close-up observation of exactly how people collect, sort and deliver recyclables to a collection point. These interviews provide reliable and detailed information, but take considerable amount of time to complete and are expensive to conduct and analyze on a large scale.



## Self-Administered Questionnaires

Self-administered questionnaires are surveys completed by randomly selected target audience members without the help of an interviewer or program representative to clarify instructions or questions. They must, therefore, be pretested for readability and clear instructions. Questionnaires are composed primarily of multiple-choice questions or rating scales but may include a limited number of short-answer, open-ended questions. Questionnaires can be administered to a group of people in a specific location and returned on the spot, or they can be disseminated to a larger audience through the mail or other means. Box # 12, on page 66 in the Appendix, provides examples of questions that can be used in a self-administered questionnaire.

The primary purpose of questionnaires is to discover the numbers and percentages of people who think or respond similarly to recycling activities. Questionnaires can be completed relatively quickly at low cost and can provide invaluable guidance when developing program strategies to overcome recycling barriers. On the other hand, mailed surveys are prone to low response rates (20-40 percent at best). Because of low response rates and the tendency that only people interested in recycling are likely to fill out the survey, it is difficult to generalize results to the larger target population. Researchers, however, have devised ways to confront this problem by using strategies to acquire higher response rates and to verify if non-respondents differ from respondents in regard to their perceptions about recycling.

Self-administered questionnaires may also be used for intercept interviews. Box #13, on page 67 in the Appendix, provides an example of a questionnaire that was used in door-to-door interviews conducted by a Boy Scout. This questionnaire could also be used in a self-administrated fashion.

## Phone Surveys

Telephone surveys have the potential to obtain higher response rates in a shorter period of time than do other survey methods. This is because a live person is on hand to persuade individuals to participate in the survey. Random sampling can easily be done allowing for data to be generalized to the larger community. For those who refuse to participate, a brief refusal survey can indicate if non-respondents differ from respondents in significant ways to indicate how confidently responses can be generalized to the larger community. A well known example of an Ohio telephone survey is the Ohio Poll, conducted by the University of Cincinnati's Institute for Policy Research. Box #14, on page 68 in the Appendix, includes some recycling questions used in the Ohio Poll. Box #15, on page 69 in the Appendix, provides examples of phone survey questions designed for a buy-recycled program.

Given public annoyance with telemarketers, researchers have devised ways to gain acceptance and participation by using appropriate interviewing techniques, avoiding sensitive questions and by sending advance letters announcing the call. Training people to use proper interviewing techniques can be labor intensive, but phone surveys have several advantages over other surveys. They can provide a random sampling, reach more people more quickly (including hard-to-access populations such as apartment dwellers and rural households), and research staff are not bound geographically to the target area.

Research  
is first  
and foremost  
about asking  
questions.



## Control Group and Other Experimental Designs

Control group experiments are generally used to test the effectiveness of strategies designed to increase recycling participation. These strategies may include the introduction of new recycling collection bins, the distribution of a new recycling promotional brochure and many other types of promotional tools. Experimental designs require at least two groups within a target audience. One group is provided with the program intervention strategy (experimental group), and one group is given an alternative (control group). Target audiences for experiments may include different neighborhoods served by curbside recycling, different stores selling recycled-content products or different classrooms in the same school. In the case of school education, one classroom may be exposed to new recycling educational material, while the control group continues to receive standard instruction. Surveys may then be used following the intervention to detect if the households of students in the experimental group have increased recycling compared with the households of students in the control group.

An example of a simple experimental design used for a public area recycling opportunity is provided in Box # 7, on page 61 in the Appendix. An example of a control group experiment using more than one experimental group to test new ways to sort and collect recyclable materials in curbside programs is provided in Box #16, on page 70 in the Appendix.

## Summary

Research is first and foremost about asking questions, and there are a variety of ways to do this. Local recycling programs without experience in other aspects of marketing research (survey design, data analysis, etc.) can, however, become involved in developing questions – questions for observation surveys, group meetings, focus groups, questionnaire surveys and other efforts. Local programs can also access secondary research to help brainstorm question development. When addressing how to obtain answers to questions and how to analyze responses, local programs may want to acquire outside resources in the form of partnerships or contracts with consultants. On the other hand, there are simple ways to generate surveys, make observations, analyze results and even conduct experimental research that can be accomplished with in-house staff and minimal training. This is especially doable when focusing efforts on single recycling opportunities such one or two drop off locations, a single neighborhood in a curbside recycling program, a single retail store to promote buy-recycled, a school recycling program or a single collection event.

Once programs have acquired answers to important questions about people's perceptions of recycling, the next step is to use this information to construct responses in the form of tools and strategies for using tools. The next part of this section addresses tool development, types of tools and implementation strategies.

# RESPONSE

Recycling promotional activities should be developed in response to research findings. Doing this increases the chances of achieving project goals. Promotional strategies can incorporate many different tools including education and awareness efforts, behavior modification strategies (incentives, norm appeals, prompts) and physical-logistical tools such as larger recycling bins and modified collection schedules. Two types of research help develop tools: marketing research and behavioral research.

Marketing research probes target audiences and their perceptions about recycling according to the marketing mix (the 4Ps: product, price, place, promotion). The marketing mix is explained in Section II, page 15. Box # 4, on page 58 in the Appendix, provides examples of marketing research topics for recycling.

Behavioral research is based on theories about how and why people change their behaviors. These theories have been tested in various ways, including studies about recycling behavior. Box #17, on page 71 in the Appendix, includes examples of behavior change assumptions and recycling tools.

Both marketing research and behavioral assumptions can be used together to develop tools. Each is explained below with examples of how research findings can be applied to tool development.

## Aligning Tools With Marketing Research


Information about target audiences can be effectively used when it has been analyzed according to the marketing mix. This means acquiring information about how segments of a target audience perceive recycling according to product, price, place and promotional factors. With this information, programs can proceed to develop promotional strategies related to these perceptions. The marketing research that provides this information may be either primary and/or secondary in nature. An example of tool development based on primary research will be considered first.

Let's say a recycling program wants to increase recycling at a senior complex that has an existing recycling collection program. A waste audit indicates that more materials could be recycled. The social marketing project begins with two focus group meetings, one for men and one for women living at the complex. The objective of the focus group meetings is to discover their views about the benefits of recycling (product), the barriers to recycling (price), how accessible recycling collection locations are within the complex (place) and what promotional efforts may work best to attract the attention of the residents.

Let's assume that focus group results indicate that women perceive being frugal ("using things more than once") as the primary benefit of recycling and distance to the collection bins the primary barrier. Men indicate that "feeling like a good citizen" is the primary benefit and not knowing where the collection bins are located as the primary



Recycling promotional activities should be developed in response to research findings.



Information about target audiences can be effectively used when it has been analyzed according to the marketing mix.

Theories about what motivates people to change their behavior have been used to develop tools that promote environmental behavior.



barrier. With this information, separate strategies can be developed for men and for women. For example, a promotional brochure might be developed that describes the different types of products that are made from recyclables in order to appeal to the “frugal factor” associated with women’s perceptions about the benefits of recycling. The brochure might include a picture of an American flag atop a pile of recyclables to appeal to the “citizenship factor” associated with men’s perceptions about the benefits of recycling. Barriers might be addressed by installing more collection bins closer to residents’ rooms and apartments and making the bins more visible.

Let’s assume that focus group responses uncovered the different colors that appeal to men and women, which can be incorporated into the brochure. “Women’s colors” could be used in the background of images developed to appeal to the “frugal factor” associated with women, while “men’s colors” could be used in the background of images developed to appeal to the “citizenship factor” associated with men. Sometimes it is surprising what little things can make a difference, but only research can identify these intricate things. Finally, before proceeding to develop the brochure, the program will pretest the content and design with a small group of men and women living at the complex. If recycling rates increase, the same brochure and strategies to overcome barriers could be used at other senior facilities in the community.

Secondary marketing research is also useful for developing tools. For example, a program that wants to increase recycling at multifamily units can benefit from using the multifamily housing research discussed in Box # 8, on page 62 in the Appendix. Information in the report is broken down into the perceptions of stakeholders, building owners, public officials and waste haulers, and the eventual target audience for promoting recycling – the building owners and tenants. With information from this report, recycling programs can design different promotional strategies for different groups represented at the meeting.

Marketing research that addresses the marketing mix is the best guide to develop tools for specific segments of a target population. Another type of research that is useful for developing tools is research about human behavior. This research is generally conducted by experts. Recycling programs can use their findings to develop promotional strategies for target audience segments or entire target audience populations.

## Aligning Tools with Behavioral Assumptions

Theories about what motivates people to change their behavior have been used to develop tools that promote environmental behavior. Studies in the use of these tools have verified their success. Doug McKenzie-Mohr and William Smith, in the book *Fostering Sustainable Behavior* (see Resources section), describe many of these studies and tools, including those used to promote recycling. The research-based maxims listed below have been selected from this book, along with examples recycling tools aligned with the maxims. Some of the tool strategies are hypothetical examples, while others have been taken from actual research described in the book. Remember, any tool

should be pretested with the target audience before using it on a broad scale. Box # 10, on page 64 in the Appendix, provides an example of focus group testing of some of the tools described below.

## Commitment

Commitment is a state of being bound emotionally or intellectually to an idea. People who commit are more likely to participate in an activity and will take on a bigger part in future activities. The commitment strategy includes several tools designed to address research-based maxims. To be effective, the person or business must express an interest in environmental stewardship or recycling before using this tool.

**MAXIM:** Individuals who agree to a small, initial request are more likely to agree to a subsequent larger request.

**TOOL STRATEGY:** Ask people if they think recycling is a good thing to do, then ask them to wear a “recycling” pin if they responded positively. Do this at locations near recycling opportunities, including parks, businesses, neighborhoods with curbside programs, or stores with buy-recycled promotional campaigns.

**MAXIM:** Acquiring a commitment to action increases the likelihood that the action will take place. Written commitments are more effective than oral ones.

**TOOL STRATEGY:** Ask individuals to list things they do for the environment. Acknowledge their endeavors and then ask about their views on recycling. If they respond positively, obtain a written commitment to recycle. Later, promote specifically the recycling opportunity that is available to them.

**MAXIM:** When people view themselves as being stewards of the environment, they are more likely to engage in sustainable behavior.

**TOOL STRATEGY:** Discuss the importance of recycling with local business owners that do not have recycling programs at their facilities. For those who express an interest in the importance of recycling, publish their names in a local publication as “businesses supportive of recycling.” Then return later to ask if they would be willing to establish a recycling collection program.

## Prompts

A prompt is a visual or auditory aid that reminds us to carry out a specific activity. (Forgetting is human nature.) A prompt should be noticeable and self-explanatory. Use prompts to encourage positive action, not to avoid environmentally harmful actions. Prompts are most successful when people are ready to take action.

**MAXIM:** To be effective, prompts should be timely and delivered in close proximity to the location where the desired behavior should take place.

**TOOL STRATEGY:** Place prompts directly above recycling containers. Distribute grocery list pads on site to remind shoppers to buy-recycled and place additional prompts (shelf-talkers) at the point of sale. Place household hazardous waste warning



People who commit are more likely to participate in an activity and will take on a bigger part in future activities.



A prompt should be noticeable and self-explanatory.

The major influence on our attitudes and behavior is not the media, but rather our contact with other people.



stickers on HHW items in the home. Less effective prompts include promotional materials such as pencils, fans, yardsticks, etc. given at locations like fairs and festivals that are far from any recycling opportunity.

## Norms/Motivation

Norms are what people think is the right thing to do, based on perceptions that other people, particularly people they respect, engage in the behavior. Norm behavior should be noticeable by others to be effective.

MAXIM: People look to the behavior of those around them to determine how to respond. They are most likely to respond if the behavior is modeled by someone who is respected.

TOOL STRATEGY: Publish the names of neighbors who are recycling in a local neighborhood newsletter. Request residents who recycle to put a sticker on their car that says, "I recycle" or "I buy-recycled." Acquire the support of community leaders, public officials and peer group members to endorse recycling. Place pictures of these people recycling on brochures and posters.

MAXIM: People are more likely to engage in an action if the behavior is modeled by others around them.

TOOL STRATEGY: Place a drop-off where passers by can see it from the road, and organize adults and students to use it continuously during peak traffic hours. Put pictures of neighborhood leaders purchasing recycled-content products on buy-recycled promotional brochures.

MAXIM: The major influence on our attitudes and behavior is not the media, but rather our contact with other people.

TOOL STRATEGY: Make use of community volunteers and block leaders to make personal contact with the target group to promote recycling.

## Incentives

Incentives entice people by rewarding them for taking an action. They can be monetary or non-monetary in nature. Incentives are far more effective than disincentives such as fines.

MAXIM: Monetary incentives can dramatically affect behavior. (However, if the incentive is removed there may be no motivation to continue the behavior.)

TOOL STRATEGY: Provide financial awards, coupons or gifts for recycling participation. Initiate pay-as-you-throw programs aligned with curbside recycling. Redeem returned grocery bags for purchase discounts.

MAXIM: Non-monetary incentives can work as well as monetary incentives.



**TOOL STRATEGY:** Initiate a recycling competition among schools or neighborhoods to collect recyclables or identify recycled-content products sold locally. Provide public recognition for recycling efforts.

## Feedback

Feedback provides a means to inform individuals about the progress and success of their participation and that of others.

**MAXIM:** The more people think their actions are having an effect, the more likely they are to engage in an activity – measurement changes behavior.

**TOOL STRATEGY:** Post signs above recycling collection containers that show capture rates; publish capture rates for curbside and drop-off programs through target audience communication channels.

## Persuasive Communication

Communication involves a variety of tools related to print or media channels. Several factors are important to consider when developing communication tools to persuade people to adopt a behavior.

### Vivid, Personalized Expression

Capture attention of the target group by presenting information that is vivid, concrete, and personalized so as to stand out from other information competing for attention. Personalize messages by using images familiar to the target audience and based on their perceptions about recycling. For example, if the target audience is African-American women who value recycling because it represents thriftiness and frugality, utilize images of Black women and recyclables turned into familiar, new products. Portray the amount of material recycled in a visual form such as “enough to fill the local high school auditorium” or other place well-known by the audience.

Produce several messages to appeal to different cultural and religious backgrounds of the target population.

Color and sound elements of print and media communications should also be aligned with information about the target audience.

### Credible Sources

Acquire a respected member of the community to model the desired behavior and to deliver messages. Identify which public agencies, community groups and individuals the target audience views as the most credible. These may include local celebrities (sports heroes, musicians, elected officials), peer groups, business groups, community leaders, college professors and environmental scientists. Seek endorsement from several sources.



The more people think their actions are having an effect, the more likely they are to engage in an activity – measurement changes behavior.



Personalize messages by using images familiar to the target audience.

Frame the message in a positive, negative, or extreme way depending upon perceptions of the target audience.



Before selecting tools, modify them to suit the unique circumstances of a situation.



## Frame the Message

Frame the message in a positive, negative, or extreme way depending upon perceptions of the target audience about potential messages.

### When is a negative message appropriate?

Research shows that messages that emphasize losses that result from inaction are consistently more persuasive than messages that emphasize savings as a result of taking action. Typical threats used to promote recycling include destruction of forest land and landfill expansion. However, consider threatening messages carefully. To be effective target audiences must possess a feeling of common purpose, empowerment and efficacy in their perceptions about threats. So messages about solutions should accompany threatening messages. Repeating a threatening message too often can cause people to become habituated and indifferent to it. So once the issue is understood, move on to practical solutions.

### Do you present one side or multiple sides in the message?

All issues have more than one side or viewpoint. If you are communicating with an audience that is aware of both sides of the issue, then you need to present both sides to be credible. Otherwise, you will be most persuasive if you present just one side. On the other hand, presenting opposing viewpoints and providing counterarguments, may deter your audience from anticipating or bringing up the alternative viewpoint.

### How extreme should the message be?

Tailor messages so they are slightly more extreme than the beliefs of your audience. Use research to identify reactions of the target audience to “extreme” messages proposed by the program. Messages are only extreme to the degree that they do not have “general” support. If a message is fully supported, then you are simply communicating what people already believe.

## Summary of Tools

By now, the reader can ascertain that there are a lot of tools and different strategies for using each tool. Box #18, on page 72 in the Appendix lists and summarizes potential tools. Before designing tools described in this section, modify them to suit the unique circumstances of a situation. Remember, tools are often used in combination. Box #19, on page 73 in the Appendix, describes tools that have been used together to promote a buy-recycled campaign.

## Tool Development and Pretesting

Once research has been collected about a recycling opportunity, this information has to be thought through and analyzed to help select and design appropriate tools. Constructing a “strategic brief” can help in this decision-making process. A strategic brief includes information about target audience perceptions identified according to the marketing mix (4Ps). This information is then used to develop tools. Box #20, on



page 74 in the Appendix, provides questions in a process order for developing tools and strategies relative to the marketing mix.

Once a draft tool has been generated it should be pretested. Informal meetings and focus groups are good ways to test draft strategies and tools. Box # 10, on page 64 in the Appendix is an example of a focus group used to pretest potential tools for a curbside recycling program. Box #7 on page 61 and Box #16 on page 70 provide examples of experimental testing of tools and strategies. If extensive modifications of the draft tool are required, additional testing may be required. Finally, after final modifications have been made, the tool and strategy designed for its use are ready to be implemented.



## **SECTION IV**

# **PLANNING**

## **A SOCIAL MARKETING PROJECT**

## SECTION IV

### Planning a Social Marketing Project: Seven Steps

#### Step 1

Select a Recycling Opportunity

#### Step 2

Acquire Community Support

#### Step 3

Generate a measurable, results-based goal that includes provisions for establishing base line data

#### Step 4

Identify segments within the target population

#### Step 5

Get to know target audience segments: their perceptions about recycling and other things about them that are relevant to designing promotional activities

#### Step 6

Develop tools for target audience segments to increase participation in recycling

#### Step 7

Implement tools and strategies to promote recycling and evaluate their effectiveness



# PLANNING A SOCIAL MARKETING PROJECT

The three elements of a social marketing project – results-based goals, research and responses to research – can be incorporated into a social marketing project in many different ways. A seven-step planning process can be followed to incorporate all three elements in a logical, sequential manner. These steps are:

- Step 1 Select a Recycling Opportunity
- Step 2 Acquire Community Support
- Step 3 Generate a measurable, results-based goal that includes provisions for establishing base line data
- Step 4 Identify segments within the target population
- Step 5 Get to know target audience segments: their perceptions about recycling and other things about them that are relevant to designing promotional activities
- Step 6 Develop tools for target audience segments to increase participation in recycling
- Step 7 Implement tools and strategies to promote recycling and evaluate their effectiveness

Each of these seven steps is described below. Where to find information in this guide relevant to each step is listed at the end of each step.

## Step 1 Select a Recycling Opportunity

Select a recycling, buy-recycled or special collection opportunity for a social marketing project. The following reasons may guide selection of a recycling opportunity:

- a. Waste audits indicate less than desirable performance of the opportunity



The three elements of a social marketing project can be incorporated into a social marketing project in many different ways.

- b. Information indicates potential to increase participation in the opportunity
- c. Concern about decreasing participation calls attention to the need to maintain current participation in the opportunity
- d. Initiate a new opportunity

A recycling opportunity that is selected for a social marketing project may be small or large in scope. For example, it may include many neighborhoods that are part of a curbside program, or it may address only a single drop-off or single school recycling program.

The following is a noninclusive list of potential social marketing opportunities for recycling:

- |  |  |  |
|--|--|--|
| • Residential recycling collection   | • Service industry businesses                        | • Sales at local retail outlets (grocery, hardware, household items stores)    |
| • Neighborhood curbside programs   | • Institutions (schools, churches, libraries, banks) | • Household consumer purchasing  |
| • Neighborhood drop-offs   | • Government agencies                                | • Local business purchasing  |
| • Public area programs (shopping and business districts, parks, tourist attractions) | • Special materials collection                       | • Community organization purchasing (nonprofits, schools, churches, libraries) |
| • Commercial/Institutional recycling collection                                      | • Electronics recycling                              | • Local government agency purchasing   |
| • Retail businesses and malls  | • Fluorescent light bulbs and batteries              |  |
|  | • Plastics #3-7                                      |  |
|  | • Buy-Recycled Programs                              |  |

People who can help plan, conduct and analyze marketing research are particularly important.



Once an opportunity has been selected, begin collecting information about the opportunity from published sources, peers and recycling experts.

For more information about Step 1, refer to Section I, pages 5-10.

## Step 2

### Acquire Community Support

Social marketing projects can involve many people to help plan and conduct activities. Establish a list of contact people or form a planning committee of all the key players. The list may include solid waste officials, business owners, public officials, marketing consultants, teachers, school administrators, university professors, target audience members and representatives of community organizations. Particularly important are people who can help plan, conduct and analyze marketing research.

It is unlikely that research needs will be known until you have thought through the entire project, step by step, because research is required in many steps of the social marketing process. Once you have a basic understanding of research needs for the

project, begin searching for appropriate partners that can be secured at little or no cost. These partners may include university instructors and students, scouting groups, school clubs, community organizations, health departments and local businesses. If funding is available, look for consultants with marketing expertise.

University students, particularly marketing majors in business schools, are good resources. Most marketing majors know about the following:

- Identifying target audiences
- Planning marketing research
- Creating effective surveys to uncover attitudes, perceptions and behavior
- Administering surveys
- Analyzing and interpreting survey results
- Planning marketing campaigns that include advertising and promotional strategies

Be aware that some university students taking marketing courses may be more helpful than others. Make sure to consult with the professor as to which students and groups would be more likely to have the knowledge and desire to take the partnership seriously.

When soliciting someone for help, identify the benefits of helping you. You may be able to provide small perks such as lunches at meetings, use of office software and contacts with other community leaders. Put yourself in the potential partners' shoes to consider what they may gain by helping your program. In the case of university students, some marketing courses require students to plan and implement a community marketing research project. You can provide them with an opportunity.



When generating a goal, identify the types of observable and measurable data that can be gathered.

### Step 3

#### Generate a measurable, results-based goal that includes provisions for establishing base line data

Perhaps the most important value of a social marketing project is that it is designed to achieve measurable results. The project goal should include measurable results as "indicators of success." Examples of results-based goals with indicators of success are provided in Box # 5, on page 59 in the Appendix.

When generating a goal, identify the types of observable and measurable data that can be gathered about the recycling opportunity. Various types of data may include weight of materials collected, specific recyclables to be collected, number of participants or potential participants, number of households putting bins at the curb, types and amount of recycled-content products available, amount of old equipment expected to be collected and other potential observable and measurable items. The most important data are those types that can be used to calculate recycling rates or participation rates. Consider both your ability to acquire the data and its reliability to indicate actual changes in behavior when selecting a type of data with which to measure success.

Target audiences can be segmented in many different ways.



You may need to work with key players in the solid waste infrastructure to collect and track data, including the following:

- **Recycling**

- Collectors/haulers

- Large generators that self-haul their recyclables (government facilities, office complexes, grocery stores)

- Drop-off and buy-back centers

- Processors and MRFs

- Recycling mills and end users

- **Waste management**

- MSW collectors and haulers

- Transfer stations

- Disposal facilities (landfills, WTE facilities and incinerators)

- **Buy-Recycled**

- Retail outlet managers and owners

- Corporate headquarters

- Purchasing agents for businesses, institutions and governmental agencies

- **Special Collections**

- All of the above

If you are unable to obtain data from the sources listed, you may have to conduct your own research to acquire data. If you cannot obtain data about the actual weight or amount of material collected or sold, research can be conducted to acquire target audience participation numbers.

For more information about Step 3, refer to Section III, pages 23-26.

## Step 4

### Identify segments within the target population

The “target population,” or “target audience,” for a recycling opportunity includes everyone for whom the opportunity is available. A target audience should be segmented because programs cannot successfully appeal to all people in the same way. Target audiences can be segmented in many different ways. Box # 3, on page 57 in the Appendix, provides examples of different ways that target audiences can be characterized for segmentation. Target audience segments can be identified through research, including information from existing studies and from surveys conducted locally.

Once target audience segments have been identified, they should be prioritized according to which segments are the most important to reach. A number of factors may be considered such as ability to reach the audience with available tools and resources, potential to change behavior given what is known about the audience, percent of population the segment represents, responsiveness to previous appeals, cost to reach and experience of staff with the audience.

They should be prioritized according to which segments are the most important to reach.





Select one, or at most, a few target audience segments, keeping in mind that you will target these segments with unique promotional tools and strategies based upon what you know and learn about the segments. This is called niche marketing.

The most effective use of resources may be to select a segment or segments that represent the greatest opportunity to change behavior as opposed to the segment that is least participative in recycling.

For more information about Step 4, refer to Section II, pages 14-15.

## Step 5

### Get to know target audience segments: their perceptions about recycling and other things about them that are relevant to designing promotional activities

The most important things to know about people in a target audience segment are their views about recycling relative to the marketing mix. The marketing mix is a commercial marketing concept used by social marketers to discover people's thoughts about an activity like recycling. These thoughts, or perceptions, include the positives and negatives people associate with recycling, the barriers they associate with recycling activities and the type of promotional materials and activities they would most likely respond to. In the marketing mix, people's perceptions and behaviors are organized according to the 4Ps: product, price, place and promotion. Box # 4, on page 58 in the Appendix, provides examples of how the marketing mix can be applied to people's perceptions about recycling.

Research is required to uncover people's perceptions about recycling. Existing research, also called secondary research, includes studies and reports that can provide useful information about target audiences and recycling behavior. This is the first place to start. However, because all situations are different, conduct original research, also called primary research, to understand local audiences. Many different types of research can be conducted to acquire a better understanding of local target audiences and recycling. Research may include observing target audience members engaging in recycling activities, conducting informal meetings and focus groups for target audience members and surveying the target audience. Examples of different types of research that can be applied to a social marketing project for recycling are provided in Box # 6, on page 60 in the Appendix.

Once you know more about segments of a target audience, then you can begin developing promotional activities designed specifically for those audiences.

For more information about Step 5, refer to Section II, pages 15-18.



The most important things to know about people in a target audience segment are their views about recycling relative to the marketing mix.

Tools should always be developed or modified in accordance with research findings.



## Step 6

### Develop tools for target audience segments to increase participation in recycling

Many tools, including strategies for their use, can be developed in different ways to appeal to different target audience segments. Examples of tools include education and awareness materials and campaigns, behavior modification strategies (incentives, norm appeals, prompts) and physical-logistical tools such as larger recycling bins and modified collection schedules. Box # 18, on page 72 in the Appendix, describes examples of behavior modification tools and recycling.

Tools should always be developed or modified in accordance with research findings about target audiences. This includes consideration of target audience perceptions about the marketing mix. You should always be able to justify why a certain tool is being used and why it has been developed a certain way based on specific information from research. Box # 20, on page 74 in the Appendix, provides an outline for developing tools aligned with research.

Once tools and strategies have been developed, each should be pretested with a small group (informal meeting or focus group meeting). Members of the target audience should be included in pre-testing groups. Based on feedback from the pretest, tools and strategies may need to be modified. If considerable modification is called for, the tool/strategy may need to be pre-tested again before being implemented with the entire target audience.

For more information about Step 6, refer to Section III, pages 35-41.

Each should be pre-tested with a small group.



## Step 7

### Implement tools and strategies to promote recycling and evaluate their effectiveness

As tools are being implemented with intended target audiences, assess how things are going. Tools may need to be modified during the implementation stage based on observations and feedback. Final evaluation of tools will refer back to the results-based goal established at the beginning of the project. If this goal has not been achieved over a certain period of time, rethink the project.

Not achieving desired results does not mean that a social marketing project has failed. Rather non-attainment of goals, as in most endeavors, is a learning experience to be built upon in the planning of future action. Also, failure to achieve results-based goals may be the result of unforeseen circumstances such as political or economic events beyond a program's control. Tools may then need to be revised or new ones developed for future action.

For different reasons, many of the activities designed for a social marketing project may prove beneficial in the future, even if goals are not achieved. For example, surveys that were developed may be useful in a different project or might be shared with other

Tools may need to be modified based on observations and feedback.



programs for other projects. There may be reason to assume that the tools, if applied in another context, could be successful. Local community partnerships, organized to plan and implement the social marketing project, may prove useful for many program purposes. Overall, it is highly unlikely that a social marketing project will not provide any benefits to a local program, even if results-based goals are not achieved the first time around.



# APPENDIX

## APPENDIX

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Government Initiatives for  
Recycling Advocacy: Timeline

BOX 2  
The State Plan and Social  
Marketing Opportunities

BOX 3  
Characteristics for Segmenting  
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BOX 6  
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BOX 7  
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BOX 8  
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BOX 9  
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BOX 11  
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BOX 12  
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BOX 13  
Curbside Recycling Survey  
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BOX 17  
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and Recycling Tools

BOX 18  
Tools for Recycling

BOX 19  
Promoting Buy-Recycled  
at Retail Outlets

BOX 20  
Process for Developing Tools  
and Strategies (“Strategic Brief”)

## Federal Government Initiatives

1969	National Environmental Policy Act (NEPA)  Established recycling as a national conservation activity	1972	Salvage Markets for Materials in Solid Waste  A study published by the EPA about markets for recyclables from the growing residential sector
1970	Resource Recovery Act (amendment to 1965 Solid Waste Disposal Act)  Established recycling as part of waste management policy	1976	Resource Conservation and Recovery Act (RCRA)  Addresses both solid and hazardous waste disposal and waste reduction and recycling, administered by the EPA
1970	Environmental Protection Agency (EPA)  Established to improve water and air quality and address concerns about solid and hazardous waste management	1989	Agenda for Action  EPA publication incorporating recycling as part of an integrated approach to solid waste management. Proposed a hierarchy of planning options: reuse, reduce, recycle, recovery, incineration, landfill

## State and Local Government Initiatives in Ohio

1972	Ohio EPA established  Given authority to oversee solid waste management with local health departments and authority in 1976 to meet obligations of RCRA	1989	State Solid Waste Management Plan  Counties directed to form solid waste management districts;  WRRR goal set at 25 percent
1980	House Bill 361  Boost to recycling through establishment of the Division of Recycling & Litter Prevention at the Ohio Department of Natural Resources	1995	First revision of the State Solid Waste Management Plan  Separate targets established for residential/commercial and industrial WRRR
1988	House Bill 592  Required local solid waste management planning in the tradition of RCRA, establishing a mandate to reduce Ohio's reliance on landfills	2001	Second revision of the State Solid Waste Management Plan  Residential/commercial goal for recycling set at 25 percent; industrial goal for recycling set at 66 percent; overall goal set at 50 percent by 2005
		2004	State Plan Progress Report  Combined WRRR in 2002 was 45 percent; commercial/residential 21 percent; industrial 64 percent

## BOX 2 The State Plan and Social Marketing Opportunities

Social marketing projects can be applied to a variety of recycling opportunities that exist among residential/commercial solid waste generators. The State Solid Waste Management Plan identifies three categories of residential/commercial solid waste generators:

- Single and multifamily homes

- Offices, retail and wholesale businesses

- Institutions such as schools, libraries, hospitals, prisons, parks

Any one of these locations or areas can provide an opportunity for a social marketing project.

The State Solid Waste Management Plan identifies target goals to be established in local solid waste district plans. One of two goals may be selected. These goals may also serve as primary goals for specific social marketing projects. Before describing these goals, it is important to know two acronyms:

- SWMD: solid waste management district (single or multi-county districts)

- WRRR: waste reduction recycling rate (tonnage of material recycled as a percentage of total solid waste generated)

### STATE PLAN GOALS

#### Access Goal (State Plan Goal #1):

- At least 90 percent of the residential/commercial sector in each county of the SWMD must have access to recycling or other alternatives to landfill disposal.

- The SWMD must establish a target WRRR for residential/commercial recycling to be achieved by the third year after plan approval.

- The SWMD must establish a current ("reference year") WRRR for residential/commercial recycling to serve as base line data.

- Recycling opportunities must exist for a minimum of five materials recognized as "highly amenable to recovery" from the residential sector and five materials recognized as "highly amenable to recovery" from the commercial and institutional sectors.

- Residential: corrugated cardboard, mixed paper, newspaper, glass containers, scrap tires, used motor oil, textiles, lead-acid batteries, major appliances, yard waste, steel containers, aluminum containers, plastic containers, household hazardous waste

- Commercial/institutional: corrugated cardboard, office paper, newspaper, glass containers, steel containers, aluminum containers, plastic containers, wood pallets and packaging, food waste, lead-acid batteries, major appliances, yard waste

#### Recycling Rate Goal (State Plan Goal # 2)

- The SWMD must plan to achieve a residential/commercial WRRR of 25 percent for each county in the SWMD.

- If a 25 percent WRRR has already been achieved, a higher achievable goal is appropriate.



Information about target audiences can help recycling programs decide who to talk to (segments), how to talk to them (communication tools), and what affects their behavior (strategies to overcome barriers to recycling). The characteristics identified below provide ways to segment target audiences. Examples from recycling research are provided relative to segmented audiences.

### Demographic Information

(the most popular and easiest way to describe a segment):

CHARACTERISTICS: age, income, education, gender, race, household size, type of household (single or multifamily), religion, marital status

EXAMPLES:

Ohioans 65 years of age and older report their household is “very active” in recycling more frequently than residents of other age groups.

African-American Ohioans and Ohioans 18 to 29 years of age reported lower levels of household recycling activity more frequently than other residents.

### Geographic Information:

CHARACTERISTICS: proximity to a recycling opportunity; suburban, rural, urban; size of city or township

EXAMPLES:

Residents living in the Columbus area reported lower levels of household recycling activity more frequently than other residents polled in Ohio.

The most frequent users of the drop-off site traveled 4.3 miles.

### Behavior Information:

CHARACTERISTICS: user status (nonuser, frequent user, ex-user) knowledge about and attitudes toward recycling, perceptions about the barriers and benefits of recycling

EXAMPLES:

Those who did not compost believed they did not have the time to compost.

Those who composted reported a greater desire to reduce the amount of waste they produced than did non-composters.

40 percent of female respondents identified at least one or more recycled-content products available locally, compared to 22 percent of male respondents

### Psychographic Information:

CHARACTERISTICS: social class (lower, middle, upper), locus of control, lifestyle (frugal, adventurous, etc.), personality traits that make up the internal make-up of the individual independent of a specific situation (authoritarian, gregarious, compulsive, ambitious)

EXAMPLES:

Authoritarian personalities are more likely to accept information from a public official compared to other types.

Those who believe that they have more control over events and that their actions make a difference (locus of control), engage in more pro-environmental behaviors than those who do not possess this belief.

## BOX 4 The Marketing Mix (the 4Ps) and Recycling

Each of the 4Ps of the marketing mix is explained below according to potential topics for research about a recycling opportunity. The examples are noninclusive and their relevance depends upon the type of recycling opportunity and community situation in which it exists.

### **PRODUCT - The value or benefit of participating in recycling programs**

Discover target group perceptions about:

1. The environmental and economic concerns addressed by recycling (pollution, land space, resource conservation, employment, economic development)
2. Economic incentives to recycle, including cost avoidance
3. Augmented products that may be offered in a recycling program (social benefits, information benefits, etc.)
4. Values such as frugality and thriftiness associated with recycling
5. Recycled-content product quality and price
6. Environmental and economic benefits of purchasing recycled-content products
7. Throwing things away (the competition)

### **PRICE - The costs or barriers to participating in recycling programs**

Discover target group perceptions about:

1. Time and effort involved in sorting and storing
2. Time and effort involved in taking to curb or taking to drop-off
3. Fees for recycling participation
4. Costs of collecting materials
5. Psychological risks and physical discomfort
6. Comparative price of virgin vs. recycled-content product quality and price
7. The time and effort involved in throwing things away (the competition)

### **PLACE - Recycling location accessibility and instructions for using the location**

Discover target group perceptions about:

1. The how-to-instructions for recycling collection programs at household separation point or drop-off site
2. The accessibility of recycling locations (curb-side, drop-off, special collection point)
3. Safety and comfort, psychological risks
4. Visual appeal
5. Location of vendors of recycled-content products
6. Locating recycled content products on store shelves

### **PROMOTION - Recycling awareness messages and campaigns (communication tools)**

Discover target group perceptions about:

1. Media messages
2. Education and awareness materials
3. Strategies for changing behaviors

**PRIMARY GOALS**

<b>RESULTS-BASED GOALS</b>	<b>DATA COLLECTION</b> (base line data)	<b>INDICATORS OF SUCCESS</b>
1. Increase recycling rate	Materials recycled (by weight) as a percentage of total materials generated (by weight)	Increase the recycling rate of the Buckeye curbside program by 10 percent
2. Increase quantity of recyclables collected	Weight of recyclables targeted for collection	Increase by 500 pounds the amount of plastic containers collected at Buckeye High School in one year
3. Increase public participation in recycling	Number of people using a recycling opportunity expressed as a percentage increase or included in a participation rate	Increase by 10 percent the number of people using the Buckeye drop-off  Increase the Buckeye curbside participation rate by 10 percent
4. Increase number of recycled-content products sold	Vendors' records of number of recycled-content products sold	Increase by 200 the number of plastic lumber 2X4s sold at the Buckeye Hardware store
5. Increase number of consumers purchasing recycled-content products	Number of people purchasing recycled-content products	Increase by 10 percent the number of people purchasing recycled-content products at the Buckeye grocery store

**SECONDARY GOALS**

<b>ACTIVITY-BASED GOALS</b>	<b>PROJECT ACTIVITIES</b>	<b>INDICATORS OF ACCOMPLISHMENT</b>
6. Conduct research activities to provide information about target audiences and to accomplish other steps in a social marketing project that will help achieve primary goals	Acquire useful research Acquire partners to help conduct research Develop a unique survey Administer an existing survey to the target audience Conduct focus group meetings	Three articles were used to identify two segmented target audiences and to develop a tool to increase recycling at two apartment complexes  A face-to-face interview survey to ascertain base line participation at the Buckeye drop-off was constructed and pilot tested
7. Develop tools, in response to research, that are designed to achieve primary goals	Develop education and awareness materials Develop behavioral strategies such as norm appeals, incentive programs, prompts, etc. Implement behavioral strategies Evaluate behavioral strategies	A take-home waste audit survey for third graders was developed as a tool to reach adults through children  Three adolescent peer group community leaders were acquired for participation in the development of a normative tool  3,000 "I spotted you recycling!" brochures were printed and distributed to homeowners

## Social Marketing Research Activities

RESEARCH TYPE	TRAITS	STRENGTHS/PURPOSE	LIMITATIONS
<b>SECONDARY RESEARCH METHODS</b>			
1. Existing Data	U.S. Census Bureau reports, polls, local community and GIS data	Useful to identify target audience segments and establish base line data	May not provide all the information and data needed
2. Literature Review	Books, trade & academic journal articles, reports and studies	Useful to identify barriers, construct tools, design primary research	Every situation is unique; cannot replace local primary research
3. Interviews	Peers, colleagues and experts can provide advice and insight	Useful to identify barriers, construct tools, plan social marketing project	Small number limits reliability and may contradict research findings
<b>PRIMARY RESEARCH METHODS</b>			
4. Casual Observation	Observe recycling behavior in a real setting to ascertain how actions are carried out	Easy/inexpensive to conduct; can detect physical barriers, skills and errors; can verify or contradict self-reporting	Cannot replace interviews and surveys as methods of determining target audience perceptions of the benefits and barriers to recycling
5. Direct Measurement	Check results of behavior, waste audits, contamination levels, sales of recycled-content products, etc.	Provides reliable information that may verify or contradict self-reporting in surveys	
6. Controlled Observation	Observe recycling behavior using protocols and coding checklists	Able to capture a large variety of information about who, when, where and what triggers or cues behavior	
7. Group Meetings	A forum to discuss various aspects of a social marketing program that may include stakeholders, gatekeepers and target audiences	Can help plan and provide support for a program and identify potential barriers and benefits of recycling for various target audiences	Is unlikely to provide as reliable information about barriers and benefits as focus groups and surveys
8. Focus Groups	A formal method of interviewing small groups of randomly selected target audience members	Ascertains target audience manner of speaking about recycling; identifies questions to ask on surveys; identifies barriers and benefits of recycling	Small sample size limits the ability to generalize findings to the larger population; requires some training in formal aspects of the process
9. Intercept ("Face-to-Face") Interviews	Interview individuals at select public locations using a standard survey	Can reach many people relatively quickly and inexpensively; good way to validate focus group results; can identify barriers and benefits of recycling	Results cannot be projected to the entire target audience unless representative sample obtained
10. In-Depth Interviews	In-home or in-business interviews	Capable of providing reliable and detailed information about perceptions and behavior; can identify barriers and benefits of recycling	May take considerable amount of time to complete and analyze well; smaller samples than surveys
<b>SURVEYS WITH GREATEST POTENTIAL FOR GENERALIZATION TO ENTIRE TARGET AUDIENCE</b>			
11. Self-Administered Questionnaires	Questionnaires are mailed to a representative sample of the target audience	Can be completed relatively quickly at low cost with potential to generalize results from focus groups and interviews	Prone to low response rates limiting ability to generalize results
12. Phone Surveys	A live person administers a survey to a representative sample of the target audience	Can reach many people quickly, including those hard to reach with potential to generalize results from focus groups and interviews	Public annoyance factor; interview training can be labor intensive
<b>13. EXPERIMENTAL RESEARCH</b> Intervention applied to one group or opportunity and compared with another not exposed to the intervention			

The following example is about the use of recycling containers in a public area in Washington D.C. known as “the Mall,” a popular tourist site near the Lincoln and Washington Memorials.

1. Secondary research guided recycling program planners to enhance recycling collection bins at this popular tourist destination. They added elaborate signage to the containers, including words and pictures identifying materials collected and statements about the amount of waste generated per week at the location. Also, the recycling containers were constructed of a different size and shape from the clearly-marked “trash” containers near by. It was expected that the elaborate signs and distinguishable recycling containers would lead to increased use and less contamination.

2. This strategy was put to the test by designing a simple experiment that included four newly-designed recycling containers and one that remained in its original form in the same area. As part of the experiment, teams of trained observers recorded how people disposed of their trash and recyclables.

The results of their observations indicated:

- (a) the signs were being ignored, and
- (b) most of the recyclable materials generated came from concession stands. Furthermore, an examination of what was collected indicated no difference in use between the enhanced collection bins and the bin that was not enhanced. Equally discouraging, all recycling containers included much contamination.

3. This observational study prompted the local recycling program to reconsider its promotional and collection strategy. First, the program designed more clearly-distinguishable trash and recycling containers. Second, they developed less elaborate signage. And third, they sought the help of concession staff, encouraging them to prompt customers to use the recycling containers in the area whenever they sold recyclable containers.

\* This example is from *Fostering Sustainable Behavior: An Introduction to Community-Based Social Marketing*, Doug McKenzie-Mohr and William Smith (Gabriola Island, B.C.: New Society Publishers), pp. 23-25, as summarized from Archie, M, Mann, L., & Smith, W.A. (1993). *Partners in Action: Environmental Social Marketing and Environmental Education*, Washington, D.C.: Academy of Educational Development.

## BOX 8 Group Meeting About Multifamily Recycling\*

In the late 1990's, a series of forums were conducted in several towns in Massachusetts that brought together multifamily building owners, waste haulers servicing multifamily units, community officials and residents in multifamily housing. Meeting facilitators relied on secondary research to provide background information for the meeting and to generate appropriate questions relevant to multifamily recycling and the stakeholders in attendance.

The following are statement summaries about barriers to recycling identified by the meeting participants.

### **Multifamily building owners stated:**

1. Recycling is unsanitary and unsightly
2. Recycling is confusing: guidelines are confusing and always changing
3. Recycling is a headache because containers for recycling attract illegal dumping and vandalism
4. Waste haulers will not return phone calls about recycling services.
5. Waste haulers take recyclables to the landfill anyway
6. Some tenants don't read or do not read English, and multilingual information is not always available
7. My tenants use recycling bins for other purposes and/or take them when they move

### **Waste haulers stated:**

8. Dedicated routes for recyclables are often unfeasible
9. Customers may not be willing to pay extra costs for recycling services
10. There is no additional room for collection containers at the customer site

### **Community officials stated:**

11. Municipal budgets for promoting recycling in multi-unit buildings are limited
12. Landlords, not tenants, pay garbage bills making it hard to use Pay-As-You-Throw incentives
13. Containers are shared, so it is difficult to see who uses and who does not put out recyclables which limits the ability to utilize peer pressure within multifamily buildings to encourage recycling

### **Residents stated:**

14. Recycling is inconvenient
15. Communication problems about recycling can be caused by uninterested property managers
16. Recycling is confusing when haulers change the list of recyclables they collect

\*This example contains information taken from a report titled "Multifamily Recycling: Barriers and Opportunities," prepared by Aceti Associates for the Massachusetts Department of Environmental Protection, November 20, 2002.

The questions below are examples of focus group questions that address the barriers and motivations people may perceive about a curbside recycling program:

1. If you recycle most or all of the time, what motivates you to do this? If you don't recycle or don't recycle as much as you could, what has stopped you?
2. Is there anything that you can think of that would lead you to recycle more than you do now? What prevents you from recycling now?
3. How convenient is it to recycle? If you don't find recycling convenient, what would make it more convenient?
4. Do you recall receiving materials from the City regarding what is recyclable? Have you kept those materials? What if anything would make it easier to know what items can be recycled?
5. What do you believe is most likely to motivate people in the City to recycle?
6. Do friends, family, or colleagues expect your household to recycle? Whose opinion do you care about most when it comes to recycling?
7. (ASK RECYCLERS) Do you expect your neighbors or friends to recycle?
8. (ASK NON-RECYCLERS) Do you take notice of whether your neighbors or friends recycle?
9. What do you feel is the most effective way for the City to encourage people to recycle as much as they possibly can?
10. Do you have any additional comments you would like to share?

\* The following questions are from *Focus Group Research: How to Conduct It & How to Contract For It*, prepared by Aceti Associates of Arlington, MA, 2003, pp. 21-25.



## BOX 10 Focus Group Questions About Recycling Promotional Tools\*

The research questions below were used to evaluate promotional strategies designed for a curbside program.

1. One problem with the present curbside recycling collection program is that residents are not diverting as much material as they possibly could. We know from other research that we have done that many residents do not know all of the items that can be recycled and that many do not keep or refer to the recycling flyers that the city provides. As a result, one of the strategies that we are considering is attaching decals to the recycling containers that clearly indicate what is recyclable. What do you think of this idea?
2. I have brought to this meeting several mock-ups of decals that we are considering using. I'd like to show you these and ask you to provide me with feedback on each.
3. We are considering calling households to ask them to make a commitment to refer to the decal. This commitment would simply mean that a household pledges to refer to the decal when they first receive it in the mail, and to also refer to it whenever they are unsure of what can be recycled. By gaining this commitment we expect that residents will become more knowledgeable about what can be recycled. What do you think of this idea?
4. One possibility that we are considering is asking for permission to publish in the newspaper the names of households who make a commitment to increase their recycling by referring to the decal. By publishing their names in the newspaper we believe that we can build greater community support for recycling. What do you think about this idea?
5. We are considering providing residents with information about the types of products that are made from recyclables collected by the city. By providing this information, it is expected that residents will have a fuller understanding of the benefits of curbside recycling. What do you think of providing this information to residents?
6. This information could be provided via radio or newspaper ads, billboards, direct mailings to households or a variety of other forms of communication. What do you think would be the most effective way to provide information on the products that are made from the recyclables we collect?

\* These questions are from *Focus Group Research: How to Conduct It & How to Contract For It*, prepared by Aceti Associates of Arlington, MA, 2003, pp. 25-27.



Research interviewers on-site asked users at two drive-by, drop-off sites the following questions, in order to understand recycling participation at the two sites.

**1 What type(s) of recyclable materials did you bring today?**

1. glass    2. plastic    3. aluminum
4. steel    5. paper    6. cardboard
7. newspaper
8. other \_\_\_\_\_

**2 On average, how often do you use this drop-off site over the course of a year?**

1. daily                      2. weekly
3. biweekly                4. monthly
5. quarterly               6. 1x or 2x a year
7. first time at site 9. DK

**3 Are you out today just to recycle materials, or are you running other errands today?**

1. out to recycle
2. running other errands
3. other 9. DK

**4 Is this drop-off site closer to home, closer to work, closer to where you shop, or something else?**

1. closer to home
2. closer to work
3. closer to where you shop
4. other 9. DK

**5 Do the materials you brought today come mostly from home, mostly from work, or an equal mix of the two?**

1. mostly from home
2. mostly from work
3. equal mix of the two 9. DK

I need to ask you some additional questions for statistical purposes. If at any point you don't wish to answer a question, just say so and we'll move on.

**6 In what year were you born?**

\_\_\_\_\_

**7 What is the highest level of education you have completed?**

- |                           |                       |
|---------------------------|-----------------------|
| 1. grade school           | 2. high school or GED |
| 3. Vo-tech/2 year program | 4. some college       |
| 5. college graduate       | 6. graduate degree    |

**8 How many people (including yourself) live in your household?** \_\_\_\_\_

**9 So we can calculate the average distance people travel to this drop-off site, may I have your home address and zip code?**

If refuse 1x, ask for nearest street intersection.

If refuse 2x, explain purpose of project again and attempt to get intersection.

complete address

\_\_\_\_\_

zip code \_\_\_\_\_

**10 Sex of interviewee (do not ask)**

1. male    2. female

**11 Record any additional comments from the interviewee in the space below.**

\* Questions have been taken from "Report to the Delaware Knox Marion Marrow Joint Solid Waste Management District: Additional Drop-off Recycling Research – Understanding Participation," prepared by The Strategy Team, Ltd., October, 2004.

## BOX 12 Survey Questions for a Self-Administered Questionnaire

The questions below address barriers and motivations to recycle using a rating scale format.

1. How effective do you think recycling can be as a means of reducing trash sent to the landfill?

not at all effective						extremely effective	D/K
1	2	3	4	5	6	7	

The following are often stated as reasons for recycling.  
Please rate the importance of each reason for you.

2. Because of satisfaction in saving energy and resources.

not important at all						very important	D/K
1	2	3	4	5	6	7	

3. Because it helps the economy and creates jobs.

not important at all						very important	D/K
1	2	3	4	5	6	7	

4. Because my neighbors and others in the community recycle.

not important at all						very important	D/K
1	2	3	4	5	6	7	

The following are often stated as reasons why people in our community do not use the Buckeye Township drop-off on Woody Hayes Boulevard. Please indicate the importance of each reason for you.

5. I am often unsure whether a particular material is recyclable.

strongly disagree						strongly agree	D/K
1	2	3	4	5	6	7	

6. Sometimes these recyclables end up going to the landfill.

strongly disagree						strongly agree	D/K
1	2	3	4	5	6	7	

7. It is inconvenient for me to use because it is not on the way to anywhere I travel.

strongly disagree						strongly agree	D/K
1	2	3	4	5	6	7	

8. One reason people give for why they use the Buckeye township drop-off on Woody Hayes Boulevard is that it easy to stop there on the way to work, shopping or other type of trip. How important is this as a reason why you use the drop-off?

not important at all						very important	D/K
1	2	3	4	5	6	7	

## Grove City Recycling Survey

What Day is your trash/recycling bin picked up? (circle one)

Monday    Tuesday    Wednesday    Thursday    Friday

Hi! My name is A.J. Hall and I am a Boy Scout of Troop 385 here in Grove City. I am working toward the rank of Eagle Scout, and am doing my project on recycling in Grove City. I am concerned about the unnecessary waste build up at the Franklin County sanitary landfill. The landfill takes in about 3500 tons of trash a day and, at this rate, a new landfill will need to be established in about 30 years costing millions and millions of dollars. To greatly decrease expensive waste buildup, a high rate of recycling is needed. I am attempting to determine the percentage of people in Grove City who recycle and what can be done to increase this. To aid in my endeavor please answer the following questions about your recycling habits. Your time and input are greatly appreciated.

**1. Do you recycle? (circle one)**

Yes      No

If **Yes** go to question #2, if **No** skip to 4.

**2. If yes, how often do you put out your bin? (check one)**

\_\_\_once a week    \_\_\_once every two weeks    \_\_\_once every month    \_\_\_other

**3. Would you make use of a larger bin if you had the option? (circle one)**

Yes      No

**4. If no, why don't you recycle? (check all that apply)**

- |                                       |                                     |
|---------------------------------------|-------------------------------------|
| 1. ___don't have a bin                | 3. ___didn't know you could recycle |
| 2. ___don't know what you can recycle | 4. ___don't have time to recycle    |
| 5. ___don't think it is necessary     | 6. ___other (please explain)        |

**5. What would motivate you to recycle?**

---

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Thank you for helping me achieve the rank of Eagle Scout. Your input is greatly appreciated!

## BOX 14 Telephone Survey Questions About Recycling\*

Phone surveyor: "Now I am going to ask you about recycling, that is, separating from your trash or garbage such items as newspapers, aluminum, glass, plastic, and steel cans for the purpose of recycling."

Q 1. "First, how active is your household in recycling?"

1. VERY ACTIVE
2. SOMEWHAT ACTIVE
3. NOT VERY ACTIVE
4. NOT AT ALL ACTIVE
8. DK (PROBE: REREAD QUESTION)
9. NA

Q. 2. "Generally speaking, how important is recycling to you and your household. Is it . . .

1. VERY IMPORTANT
2. SOMEWHAT IMPORTANT
3. NOT VERY IMPORTANT
4. NOT AT ALL IMPORTANT
8. DK (PROBE: REREAD QUESTION)
9. NA

[ IF Q 1 > 3; SKIP TO Q 6]

Q. 3. "And, do you take your recyclables to the curbside for pickup, do you take your recyclables to another location for drop off, or both?"

1. CURBSIDE ONLY
2. ANOTHER LOCATION ONLY **SKIP TO Q 5**
3. BOTH
8. DK (PROBE: REREAD QUESTION)
9. NA **SKIP TO Q 6**

Q. 4. "How often do you take your recyclables to the curb for pickup . . .

1. ONCE A WEEK
2. TWO OR THREE TIMES A MONTH
3. ONCE A MONTH, OR
4. A FEW TIMES A YEAR?"
8. DK (PROBE: REREAD QUESTION)
9. NA
0. INAP

[IF Q 3 NE 3; SKIPTO Q 6]

Q. 5. "How often do you take your recyclables to a drop off location . . .

1. ONCE A WEEK
2. TWO OR THREE TIMES A MONTH
3. ONCE A MONTH, OR
4. A FEW TIMES A YEAR?"
8. DK (PROBE: REREAD QUESTION)
9. NA
0. INAP

Q. 6. "Have you seen the 'Recycling, It's Good for the Bottle, Good for the Can' commercial on television?"

1. YES
2. NO
8. DK (**DO NOT PROBE**)
9. NA

Q. 7. "Have you seen, heard or read anything else about recycling lately?"

1. YES
2. NO **SKIP TO END**
8. DK (**DO NOT PROBE**) **SKIP TO END**
9. NA **SKIP TO END**

Q. 8. "Was that on

1. TELEVISION
2. RADIO
3. NEWSPAPER
4. MAGAZINE
5. SOMEWHERE ELSE \_\_\_\_\_  
\_\_\_\_\_ (RECORD VERBATIM RESPONSE)
8. DK (PROBE: REREAD QUESTION)
9. NA
0. INAP

\*The questions were part of the February 2004 Ohio Poll conducted by the University of Cincinnati's Institute for Policy Research. Eight hundred forty-two randomly selected Ohio adults were interviewed for the poll.

The survey questions below are part of a telephone survey administered to 801 randomly selected heads of households in King County, Washington in 1994.

1. When you see the term "recycled" on a product or package, what does it mean to you?
2. Have you ever heard the phrase "post-consumer content" in the context of recycling? If yes, explain.
3. Compared to products made without recycled material, would you say that products made with recycled material are:
  - 5 = much higher quality
  - 4 = somewhat higher quality
  - 3 = same quality
  - 2 = somewhat lower quality
  - 1 = much lower quality
4. Compared to products made without recycled materials, would you say that products made with recycled material are:
  - 5 = much less expensive
  - 4 = somewhat less expensive
  - 3 = same price
  - 2 = somewhat more expensive
  - 1 = much more expensive
5. Compared to products made without recycled material, would you say that products made with recycled material are:
  - 5 = much more widely available
  - 4 = somewhat more widely available
  - 3 = equally available
  - 2 = somewhat less widely available
  - 1 = much less widely available
6. Compared to products made without recycled material, would you say that products made with recycled material:
  - 5 = help the environment much more
  - 4 = help the environment more
  - 3 = same effect on the environment
  - 2 = help the environment less
  - 1 = help the environment much less
7. How likely do you think it is that products made of recycled material are available at \_\_\_\_\_?
  - 4 = very likely
  - 3 = somewhat likely
  - 2 = not very likely
  - 1 = not at all likely
8. How often do you look at the label of a household product to determine the recycled content before you make a purchase decision?
9. On your last trip to the grocery store, did you buy any products with recycled content?
 

Yes                  or                  No
10. Of those who had claimed to have purchased one or more products with recycled content: What product or products did you buy that had recycled content?
11. Which one of the following would best motivate you to buy products made from recycled materials over those that are not made from recycled materials? Would you be best motivated to buy products made from recycled materials if they:
  - a. had a better price
  - b. were easier to find
  - c. were higher in quality

\* Questions have been taken from: *Consumer Research Survey: Knowledge, Attitudes, and Purchase of Recycled-Content Products*, prepared by the King County Commission For Marketing Recyclable Materials and April M. Atwood, Ph.D., University of Washington Graduate School of Business Administration, 1994.

## BOX 16 Experimental Research About Recycling\*

In the research project described below, four neighborhoods in Saint Paul, Minnesota tested new ways to sort and collect recyclable materials, each using a different strategy. The purpose of the study was to field test several different strategies for expanding the effectiveness of the existing curbside program and for increasing the quantity of material diverted for recycling or composting.

### **The four strategies tested were:**

1. Two-stream collection system using two 18-gallon blue bins. Residents sorted into two categories with bi-weekly collection.
2. Two-stream collection using 35-gallon rolling carts. Residents sorted into two categories with bi-weekly collection.
3. Two-stream collection system using blue bins and a 35-gallon rolling cart for organics. Collection every week.
4. Single-stream collection system using one large 60-gallon rolling cart with bi-weekly collection.

Each of these systems was compared against a control group, an area demographically similar to the associated test areas. The control group participated in the traditional curbside collection program. This program required residents to sort recyclables into seven categories (glass by color, newspaper, mail and mixed, office paper, aluminum) with the items placed in separate paper bags that were in turn placed in two 18-gallon bins collected bi-weekly.

If the residents in a study area exhibited an increase in participation after the study started, but so did residents of the control area, then it was not assumed that the improvement in the study area was due to the study, but rather was caused by something else going on in the city.

Data was collected on set-out rates, participation rates and amounts of materials recycled. Results of the research are available online at <http://www.eureka recycling.org>.

\* This example is from: "A Comparative Analysis of Applied Recycling Collection Methods in Saint Paul: Executive Summary," presented by Eureka Recycling (May 2002). Full report on line at <http://www.eureka recycling.org>

Below are examples of research-based assumptions about behavior and examples of tools that are aligned with the assumptions.

1. An individual is most likely to engage in a behavior if significant people in his or her life view the behavior positively and if the individual is motivated to meet their expectations.  
  
TOOL: Identify people who target audiences respect and develop a tool that incorporates their support for recycling.
2. When people similar to the individual perform the behavior and are rewarded for doing so, the individual will be more inclined to follow the role model's example.  
  
TOOL: Engage members of a target audience peer group in recycling. Incorporate their behavior and comments about the value of recycling into tools that make their actions and comments visible to the target population.
3. An individual will be more inclined to adopt a behavior if the individual has a sense of self-efficacy – the belief that one has the skills and abilities to perform the behavior.  
  
TOOL: Develop a tool that shows how to recycle “the easy way” and what can be done to overcome obstacles.
4. Below is a model of stages individuals pass through on their way to adopting a behavior such as recycling. Each stage can represent a different target audience segment.  
  
PRE-CONTEMPLATION STAGE: The individual is unaware there is a problem. Develop tools to raise awareness of the problem.  
  
CONTEMPLATION STAGE: The individual begins to consider there is a problem. Develop tools that emphasize the benefits of recycling and generate social pressure to conform to recycling behavior.  
  
PREPARATION STAGE: The person decides to take action but will be reluctant if there are many barriers. Tools should be used to minimize perceived barriers and convey skills needed to recycle.  
  
ACTION STAGE: Individual performs behavior once. Tools are designed to reinforce behavior with positive reinforcement to continue recycling.  
  
MAINTENANCE STAGE: Individual continues to perform behavior. Generate tools that provide reinforcement and tips on maintaining the behavior.
5. Another stages-of-change theory is based on the adoption of an activity. According to this theory, people adopt a behavior over time and in relation to the extent that others adopt the behavior. “Innovators” adopt the behavior first before the vast majority begin to accept the behavior. Innovators are followed by “early adopters,” “early majority adopters,” “late majority adopters” and “laggards.” Targeting late majority adopters and laggards can be the most difficult audience to persuade to adopt the behavior. Begin by concentrating efforts on innovators to model recycling behavior.

## BOX 18 Tools for Recycling\*

The following are examples of tools and strategies for recycling promotional activities.

### 1. Commitment

CONDITION FOR USE: target audience must express interest in recycling

TOOLS: promotional pins, oral or written pledges, publicize parties with interest in recycling; involve target audience to help promote a campaign or to staff a recycling opportunity

### 2. Prompts

CONDITION FOR USE: should be noticeable and self-explanatory, encourage positive action, not avoidance of competing action

TOOLS: verbal cue by someone near the opportunity ("You can recycle that over here."); visual or auditory aid encouraging action near the targeted behavior; signs as reminders with instructions for recycling; buy-recycled message on note pads distributed at store; shelf-talkers for recycled-content products; stickers on HHW materials in the home or office

### 3. Norms/Motivation

CONDITION FOR USE: norm behavior should be noticeable to others

TOOLS: yard signs, bumper stickers, lapel pins indicating "We recycle;" bins at curbs; media identification of recyclers with published statistics on their participation rates; endorsements in media by peer group, community leaders, respected sports figures, or other individuals and groups respected by the target group; award programs for participation or length of time participating

### 4. Incentives

CONDITION FOR USE: do not use if expected to withdraw soon after initiation; only use disincentives when acceptable to the community

TOOLS: gifts, passes, prizes, coupons; user fees and pay-as-you-throw; non-monetary award competitions; subsidized recycling bins or composters

### 5. Feedback

CONDITION FOR USE: must reach target audience directly

TOOLS: signs with capture rates above collection bins or at drop-offs; publish capture rates for curbside and drop-offs; provide feedback on door hangers

### 6. Persuasive Communication

CONDITION FOR USE: always align with target audience perceptions

#### Communication Tools:

VIVID, PERSONALIZED EXPRESSION: use images familiar to target audience with vivid statistics, color and/or sound elements that appeal to target audience segments

CREDIBLE SOURCES: local celebrities, peer group members, community leaders that endorse recycling

FRAME MESSAGE: develop a message that is positive or negative, extreme, one-sided or multi-sided depending upon the target audience

REMEMBER: Always pretest tools before final development and use.

\*These tools have been summarized from *Fostering Sustainable Behavior* by Doug McKenzie-Mohr and William Smith (see Resources section).



A social marketing project to promote consumer purchases of recycled-content products may include the following steps and tools.

### Recruitment

Send letters to local retailers explaining the importance of buying recycled-content products and request a meeting to discuss the possibility of conducting a buy-recycled promotion at their store. This reinforces your program's stand on recycling and shows retailers that you are interested in working with their businesses. (Note: managers of retail chains may need to seek approval from company headquarters before sponsoring or participating in a buy-recycled project.)

### Promotional Strategies

Once a retailer agrees to promote recycled-content products, work with the retailer to plan the project and discuss the use of the following promotional tools and strategies:

#### MESSAGE

Design a message and logo for the campaign.

#### SHELF TALKERS

Labels or signs that quickly identify products on the store shelf that are made with recycled materials. They should include the campaign logo and a brief message.

#### POSTERS

Posters placed at store entrances remind consumers to look for shelf-talkers while making selections.

#### STAFF BUTTONS

These reinforce the message that consumers should buy recycled-content products. They can also serve as conversation starters between staff and customers to explain the store's buy-recycled program.

#### COMPETITIONS TO RAISE AWARENESS

Provide a free shopping spree to the person who identifies the most recycled-content products in the store.

#### COMMUNITY PROMOTION

Highlight recycled-content products at "Parade of Homes," home and garden shows, etc. to indicate what recycled-content household or yard items can be purchased at the store.

#### INCENTIVES

The store advertises manufacturers' reduced-price coupons or rebates for selected recycled-content products.

### Feedback

Provide information on increases in recycled-content product sales to shoppers and store managers and employees.

### Pretest Promotional Strategies

Use focus groups or other research methods to evaluate draft materials, tools and strategies before finalizing and implementing the promotional campaign.

### Evaluate the Promotion

Information collected on sales for the month prior to the buy-recycled promotion and the month of the promotion serves to evaluate the immediate impact of the project and impact on specific product sales.

### Follow-Up

Generate thank you letters and certificates of appreciation. Include the following in the letters:

Copies of print advertising containing the store's name

Copies of media coverage including the store's name

## **BOX 20    Process for Developing Tools and Strategies (“Strategic Brief”)**

### **IDENTIFY TARGET AUDIENCE**

Describe the target audience segment.

What is the rationale for selecting the target audience segment?

### **RESEARCH ABOUT TARGET AUDIENCE**

What are the positives the audience associates with recycling?

What are the negatives the audience associates with recycling?

What are the barriers (things that make recycling difficult to do) the audience associates with recycling?

What types of people or groups are respected by the target audience?

### **TOOLS AND STRATEGIES**

Describe the tools and strategies that will be used to increase recycling with the target group.  
Explain how each tool relates to one or more research findings noted above.

# **RESOURCES**

## **FOR SOCIAL MARKETING AND RECYCLING**

## **Resources for Social Marketing and Recycling**

Sources of Information About Federal, State and Local  
Government Initiatives Relevant to Recycling in Ohio

Sources of General Social Marketing Information

Sources of Information About Social Marketing for  
Recycling

Sources of Ohio Demographic Data

Books About Planning and Conducting Surveys

# RESOURCES

## FOR SOCIAL MARKETING AND RECYCLING

### Sources of Information About Federal, State and Local Government Initiatives Relevant to Recycling in Ohio

**The Ohio Environmental Protection Agency, Division of Solid and Infectious Waste**

[www.epa.state.oh.us/dsiwm](http://www.epa.state.oh.us/dsiwm)

Web site includes reports that address past and current recycling in Ohio. The two most important reports are the State Solid Waste Management Plan: 2001 and 1995 versions and the Summary of Solid Waste Management in Ohio (about to be revised for 2003 data). To access these reports, select “SWMD Clearinghouse” under “Division Links.” Scroll toward end of page to “SWMD Clearinghouse Documents Menu.” Under the heading, “Plans and Reports” are the State Solid Waste Management Plans for 2001 and 1995. The Summary of Solid Waste Management in Ohio is under the subheading: “Solid Waste Management in Ohio – Recycling, Reduction, Waste Generation & Disposal.”

**The Ohio Department of Natural Resources, Division of Recycling & Litter Prevention**

[www.ohiodnr.com/recycling](http://www.ohiodnr.com/recycling)

Web site contains a variety of information about recycling in general and recycling in Ohio, including updates about recyclable materials, directory of locations to recycle in Ohio and information about recycled-content products and vendors of these products.

**The U.S. Environmental Protection Agency, Office of Solid Waste:**

[www.epa.gov/osw](http://www.epa.gov/osw)

Web site includes lots of information about solid waste and recycling, including information about the Resource Conservation and Recovery Act (RCRA).

## Sources of General Social Marketing Information

***Hands-on Social Marketing: A Step-by-Step Guide***, by Nedra Kline Weinreich (Sage Publications, 1999). ISBN: 0-7619-0867-6 (pbk.)

A useful self-help guide to social marketing, utilizing extensive public health examples. Author's intent is to teach anyone to be a social marketer.

***Social Marketing: Improving the Quality of Life***, 2nd Ed., by Philip Kotler, Ned Roberto, and Nancy Lee (Sage Publications, 2002). ISBN: 0-7619-2434-5 (pbk.)

A comprehensive explanation of social marketing applied to a variety of social and public health concerns. Includes a case study on litter prevention, with occasional reference to recycling and composting.

### Web sites

#### **The Seven-Doors Social Marketing Approach**

[www.media.socialchange.net.au/strategy](http://www.media.socialchange.net.au/strategy)

Introduction to social marketing that explains the limitations of traditional education and awareness programs, developed by Les Robinson of Social Change Media.

#### **Social Marketing Institute**

<http://www.social-marketing.org/index.html>

Alan Andreasen, a leading U.S. expert on social marketing, is supervising site development.

#### **Weinreich Communications**

<http://www.social-marketing.com/>

Site of Nedra Kline Weinreich, a social marketing consultant. Provides succinct explanation of social marketing by selecting "library" on the home page. Ms. Weinreich is author of the book, *Hands-on Social Marketing: A Step-by-Step Guide*, listed above.

## Sources of Information About Social Marketing for Recycling

***Fostering Sustainable Behavior: An Introduction to Community-Based Social Marketing***, by Doug McKenzie-Mohr and William Smith (New Society Publishers, 1999), ISBN: 0-86571-406-1 (pbk.)

Perhaps the best place to begin to understand social marketing for environmental issues and recycling in particular. Explains why social marketing is needed to supplement traditional education and awareness programs. Includes clear explanations of the basic elements of social marketing with examples related to recycling and composting.

***Tools of Change: Proven Methods for Promoting Environmental Citizenship***, by Jay Kassirer and Doug McKenzie-Mohr (Renouf Publishing Co. Ltd., 1998), ISBN: I-895643-66-X

To order, call Renouf Publishing (888) 551-7470. If Renouf is out of copies, you may request the book through the Canadian National Round Table on the Environment and the Economy (613) 992-7189.

A hands-on, step-by-step, do-it-yourself social marketing guide for environmental activities, including examples and case studies in recycling.

## Web sites

### **Fostering Sustainable Behavior**

[www.cbsm.com/](http://www.cbsm.com/)

Site is run by the Canadian environmental group, McKenzie-Mohr & Associates, managed by Doug McKenzie Mohr, co-author of the books, *Fostering Sustainable Behavior* and *Tools of Change*, listed above.

Site explains how to plan a social marketing project and contains articles, case studies and reports that address recycling barriers and tools to overcome barriers. To access research about recycling, enter a personal profile indicating recycling is your interest. The site then selects research about recycling from a large database of environmental resources. There is also an on-line forum to submit questions directly to Professor McKenzie-Mohr.

### **Tools of Change**

[www.toolsofchange.com/](http://www.toolsofchange.com/)

Sponsored by Canadian environmental and public health groups with strong links to programs in the U.S. Similar in format to the book, *Tools of Change* (listed above). Jay Kassirer, co-author of the book, is editor of this site.

Site allows for selection of various waste topics, including recycling, reducing and composting. Users can plan a social marketing project by following a step-by-step procedure and entering information unique to their own local programs. Users can also register to receive updates and information via e-mail from the site manager.

### **Massachusetts Department of Environmental Education: Motivating People to Reduce Waste**

<http://www.mass.gov/dep/recycle/motivate.htm>

This part of the Massachusetts Department of Environmental Education Web site includes a variety of resources for social marketing, including research studies about curbside, drop-off and apartment building recycling; descriptions of tools for social marketing; and guides for conducting focus groups and telephone surveys.

### **The National Recycling Coalition**

<http://www.nrc-recycle.org/>

Web site contains much information and advice for promoting recycling. Particularly useful is the Tools and Advocacy link to "Recycling Works Projects."

### **The National Recycling Coalition: Recycle Library**

<http://www.recyclelibrary.com/>

This site contains a collection of studies and reports about recycling, some of which include social marketing research. In particular, see the McKenzie-Mohr Associates social marketing project at <http://www.recyclelibrary.com/pdffiles/SocMarkMM0902.pdf>

## Sources of Ohio Demographic Data

### **United States Census Bureau**

<http://www.census.gov/>

### **City-Data.Com**

<http://www.city-data.com/city/Ohio.html>

## Books About Planning and Conducting Surveys

The following books are recommended as practical primary research guides for non-experts. The first three address how to conduct surveys and interviews; the fourth resource explains how to conduct focus groups.

***How To Conduct Surveys: A Step-by-Step Guide***, 2nd Ed., by Arlene Fink and Jacqueline Kosecoff (Sage Publications, 1998) ISBN 0-7619-1409-9 (pbk)

***How To Conduct Your Own Survey***, by Priscilla Salant and Don A. Dillman (John Wiley & Sons, 1994) ISBN 0-471-01273-4 (pbk)

***Asking Questions: The Definitive Guide to Questionnaire Design***, Revised Edition, Norman M. Bradburn, Seymour Sudman and Brian Wansink (John Wiley & Sons, 2004) ISBN: 0-7879-7088-3 (pbk)

***Focus Groups: A Practical Guide for Applied Research*** 3rd Ed., by Richard A. Krueger and Mary Anne Casey (Sage Publications, 2000) ISBN 0-7619-2071-4 (pbk)





The Ohio Department of Natural Resources  
Division of Recycling & Litter Prevention